NetLinx NI-Series Controllers
For Small or Medium Rooms (7, 8 or 15 Control Ports)..... 278 – 286
For Large or Multiple Rooms (30 or 31 Control Ports)..... 287 – 295
NetLinx Cardframes
(customizable – just add control cards) ..... 296 – 299
All-In-One Presentation Switchers ..... 301 – 309
NetLinx Communication Gateways
(utilizes KNX communication protocol) 310
NetLinx Cards and Shells
(select the right card for the application) ..... 300, 321 – 328
ICSLan Device Control Boxes ..... 311 – 320
Accessories ..... 321 – 332

CENTRAL CONTROLLERS

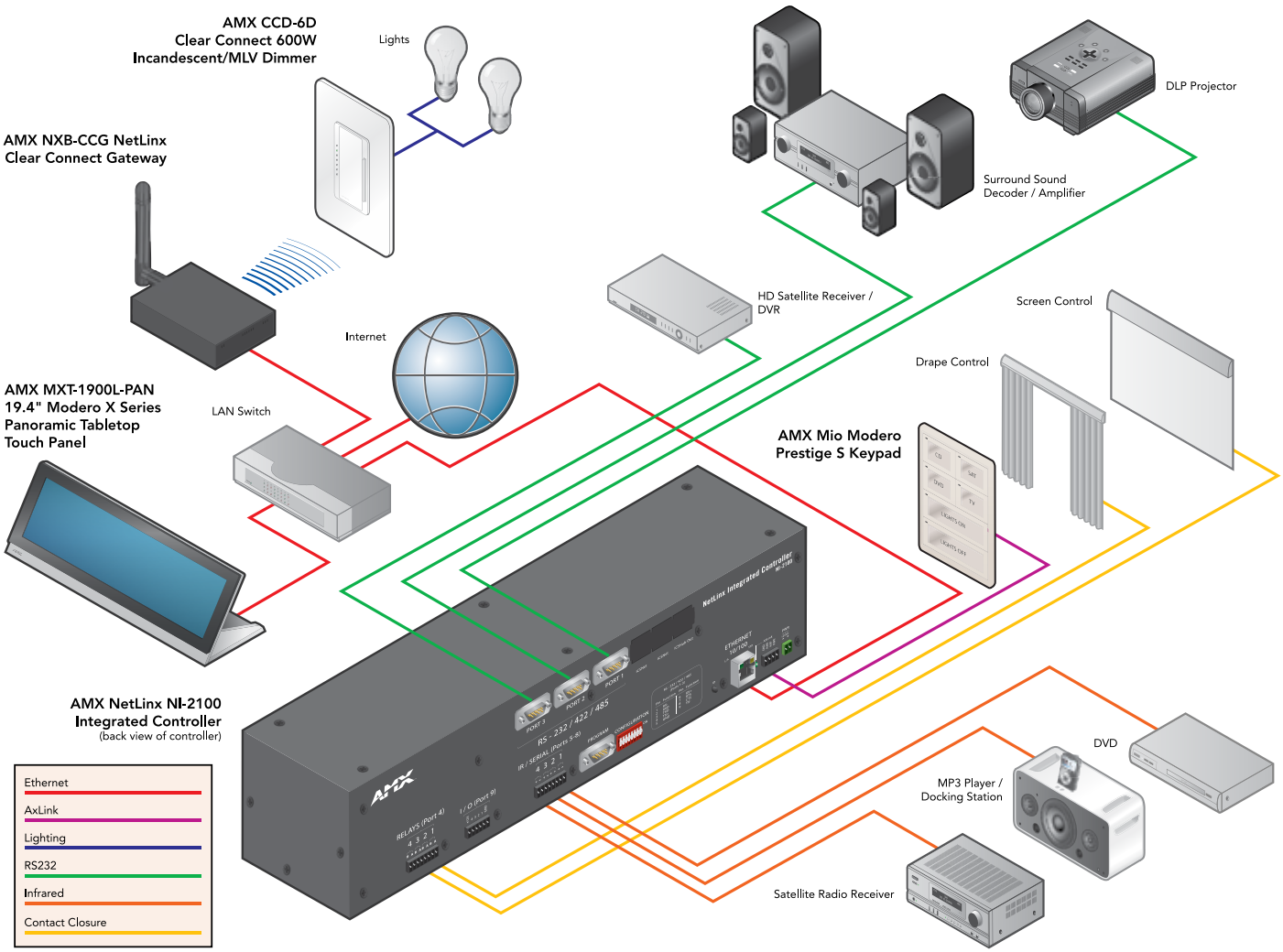
RENOWNED RELIABILITY

Ensuring Every Command is Carried Out the First Time

AMX Central Controllers are synonymous with reliability, flexibility, and security. As the brains of every AMX control system, the NetLinx family of products are designed to be a true IT standards-based, secure solution with remote monitoring and management using a client-server architecture interfacing with the AMX Resource Management Suite software applications. Furthermore, our command architecture supports net-centric management of devices – which simplifies equipment management and maintenance and lowers total cost of ownership. In fact, they use the same VxWorks Real-Time Operating System to control space shuttles and defense systems.

SYSTEM DIAGRAM

NetLinx Central Controllers can control large numbers of AMX and third party devices via RS232, IP, IR and Contact Closure.



In keeping with our philosophy of providing flexible and open solutions AMX provides 2 ways to use NetLinx controllers. We have a family of integrated controllers (the NI family) that come in prebuilt configurations. There are also a variety of components that can be used to extend the capabilities of NI controllers or alternatively to create a custom NetLinx master configuration with the exact specifications required for an installation.

Note: AMX has a family of development tools to help integrators program. These software applications range from AMXhome and AMXmeetingroom for simplified, wizard-like programming to NetLinx Studio for programming the most sophisticated control system solutions. And our drag-and-drop software, VisualArchitect, which offers programming flexibility, as well as an easy to use interface.

NetLinx NI-Series Controllers

CONTROLLERS COMPARISON CHART

FEATURE	NI-700	NI-900	NI-2100	ENOVA DVX-2100HD	NI-3100 / NI-3100/256	ENOVA DVX-3150HD	NI-3101-SIG	NI-4100 / NI-4100/256
Integrated NetLinx Master	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Integrated A/V Switcher/Scaler	No	No	No	Yes	No	Yes	No	No
AxLink Interface	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ICSNet Interface	No	No	Optional	No	Optional	No	No	Yes
10/100 Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Digital Input/Output Ports	4	4	4	4	8	8	8	8
RS-232/RS-422/RS-485 Ports	2	1	3	3	7	6	6	7
IR/Serial Output Ports	1	3	4	4	8	8	8	8
Relay Ports	-	-	4	4	8	8	8	8
Expansion Card Slots	No	No	No	No	No	No	No	Yes
IR Receiver Port	Yes	Yes	No	No	No	No	No	No
Programming via Serial Port/Ethernet	Yes/Yes	Yes/Yes	Yes/Yes	USB/Yes	Yes/Yes	Yes/Yes	USB/Yes	Yes/Yes
Built-in Web Server	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Processor Speed	304 MIPS	304 MIPS	404 MIPS	404 MIPS	404 MIPS	404 MIPS	404 MIPS	404 MIPS
On-Board Memory RAM	64 MB	64 MB	64 MB	64 MB	64 MB/256 MB	256 MB	64 MB	64 MB/256 MB
Non-Volatile Memory	512 KB	512 KB	1 MB	1 MB	1 MB	1 MB	1 MB	1 MB
FLASH Memory	32 MB	32 MB	2 GB CF Card	256 MB	2 GB CF Card	256 MB	256 MB	2 GB CF Card
Rack Space	1 RU x 1/3	1 RU x 1/3	2 RU	2 RU	2 RU	3 RU	1 RU	3 RU

2 | 0 | 1 | 4

Serial • Relay • IR • Digital I/O

NI-700

NetLinx Integrated Controller

(FG2105-70)

OVERVIEW

The NI-700 unit is geared to meet the specific control and automation needs of a single room environment, in which both price and functionality are the driving requirements. The NI-700 is configured to control a limited number of video players, projectors, lights, thermostats, and other electronic equipment.

COMMON APPLICATIONS

Ideal for single-room environments with a limited number of devices such as classrooms, conference rooms, hotel rooms and other applications.

FEATURES

- Ultra-fast 304 MIPS processor
- 2 Configurable RS-232 / RS-422 / RS-485 Serial Ports
- 1 IR/Serial Port
- 1 IR Receiver Port
- 4 Digital I/O Channels
- 1 Ethernet 10/100 Port
- 1 AxLink Connector
- 64 MB RAM
- 32 MB Flash Memory
- 512 KB Non-Volatile Memory
- AMX Device Discovery enabled
- JITC Compliant

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

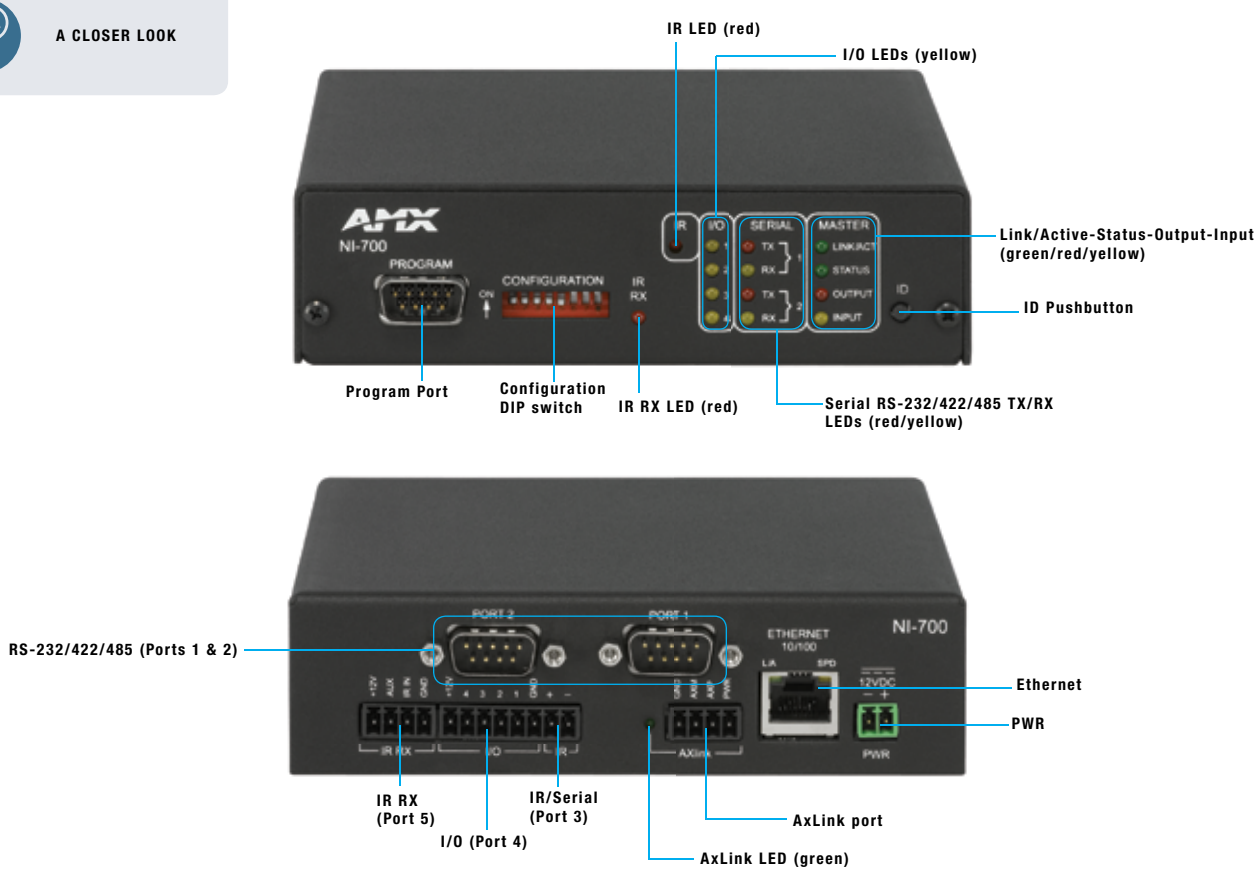
AWARD WINNER
The NI-700 was awarded the **"High Impact Product of the Year"** from *CE Pro*.

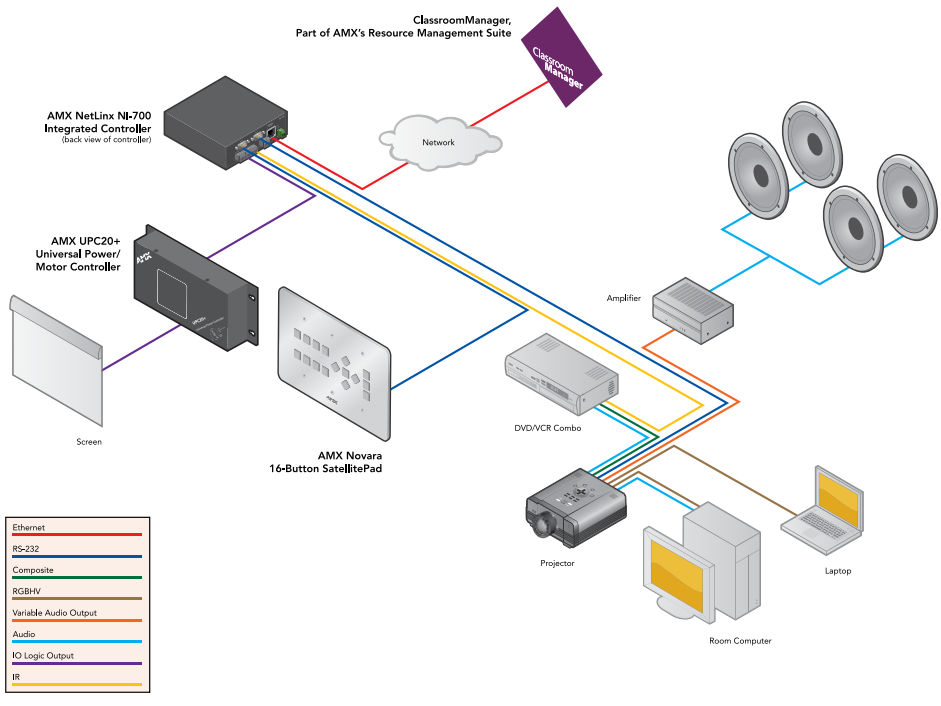
D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

JITC IA CERTIFICATION
Joint Interoperability Test Command (JITC) Information Assurance certification ensures that this product can be connected to the Defense Information Systems Network, operate to maximum performance on the network and remain secure.

A CLOSER LOOK





SPECIFICATIONS

DIMENSIONS (HWD)
- 1 9/16" x 5 9/16" x 5 1/8" (4.01 cm x 14.10 cm x 13.00 cm)
- RU: 1

WEIGHT
1.30 lbs (590 g)

POWER
- 280 mA @ 12 VDC
- Power requirements are usage dependant

ENCLOSURE
Metal with black matte finish

ONBOARD MASTER
304 MIPS

CERTIFICATIONS
FCC Part 15 Class B, CE, and IEC 60950

FRONT PANEL COMPONENTS
- Program Port
- Configuration DIP Switch: Sets the communication parameters for the Program port
- IR RX LED: Red LED lights when IR data is being received via the rear IR RX port
- IR LED: Red LED lights during the transmission of IR or Serial data via the rear IR port
- I/O LEDs: Four yellow LEDs light when the rear I/O channels 1 - 4 are active. LED indicator for each I/O port reflects the state of that particular port
- Serial LEDs
- LINK/ACT: Green LED lights when the Ethernet cable is connected and an active link is established. This LED also blinks when receiving Ethernet data packets
- Status: Green LED lights when the Controller is programmed and communicating properly
- Output: Red LED lights when the Controller transmits data, sets channels sends data strings, etc.
- Input: Yellow LED lights when the Controller receives data from button pushes, strings, commands, channel levels, etc.
- ID Pushbutton: Sets the NetLinx ID (Device only) assignment for the device

REAR PANEL CONNECTORS
- RS-232/422/485 (Ports 1 & 2)
- IR RX (Port 5)
- Digital I/O (Port 4)
- IR/Serial (Port 3)
- AxLink LED
- AxLink Port: 4-pin 3.5 mm mini-Phoenix (male) connector provides data and power to external control devices
- Ethernet Port: RJ-45 port for 10/100 Mbps communication. LEDs show communication activity, connection status, speeds, and mode information:
  - SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps.
  - L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
- Power Port

ENVIRONMENTAL
- Operating Temperature: 0° C (32° F) to 50° C (122° F)
- Operating Humidity: 20% to 85% RH
- Heat Dissipation (Typical): 11.5 BTU/hr

INCLUDED ACCESSORIES
- 2-pin 3.5 mm mini-Phoenix female PWR connector (41-5025)
- 4-pin 3.5 mm mini-Phoenix female connector (41-5047)
- 6-pin 3.5 mm mini-Phoenix female I/O connector (41-5063)
- CC-NIRC IR Emitter

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	358
AC-RK	Accessory Rack Kit	(FG515)	329
AC-SMB	Surface Mounting Bracket	(FG525)	329
CC-232	RS232/422 Cables		364
CC-NIRC	IR Cables	(FG10-000-11)	364

1 | 0 | 3 | 4
Serial • Relay • IR • Digital I/O

NI-900

NetLinx Integrated Controller

(FG2105-90)

OVERVIEW

The NI-900 unit 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. It is configured to control a limited number of lights, thermostats, video displays and other equipment.

COMMON APPLICATION

Perfect for single rooms or two or more small rooms with a limited number of devices such as home theaters, MDUs, hotel rooms and other environments.

FEATURES

- 1 Configurable RS-232 / RS-422 / RS-485 Serial port
- 3 IR / Serial ports
- 1 IR Receiver Port
- 4 Digital I/O ports
- 2 Communication Networks: AxLink and Ethernet (TCP/IP)
- 304 MIPS processor speed
- 64 MB RAM
- 32 MB Memory
- 512 KB Non-Volatile Memory
- AMX Device Discovery enabled
- JITC Compliant

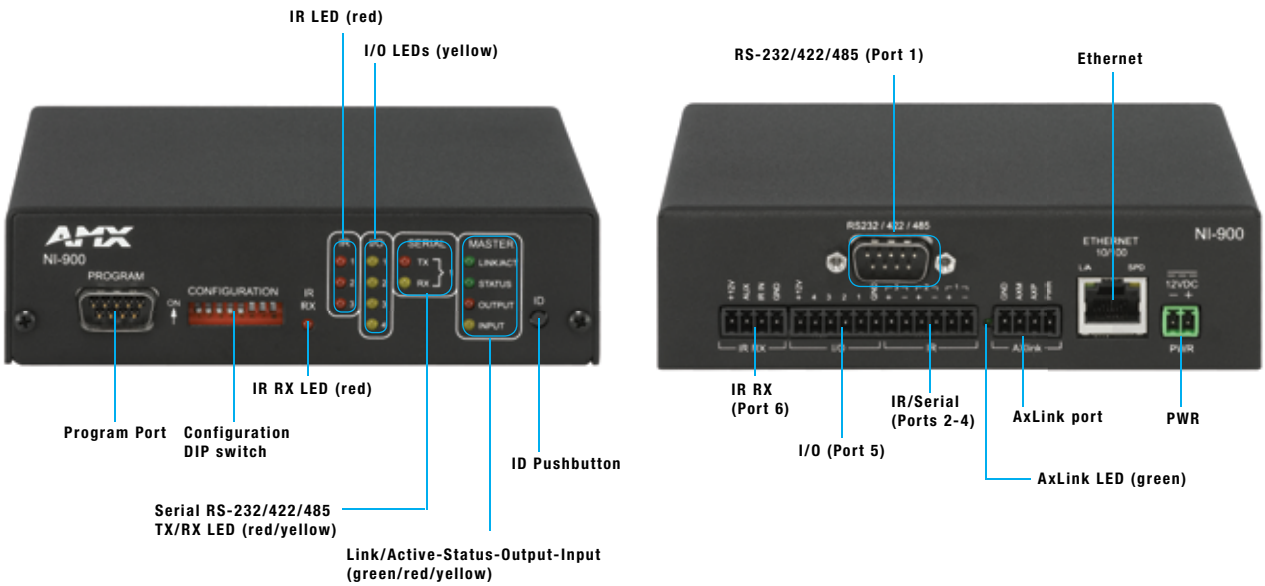
TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

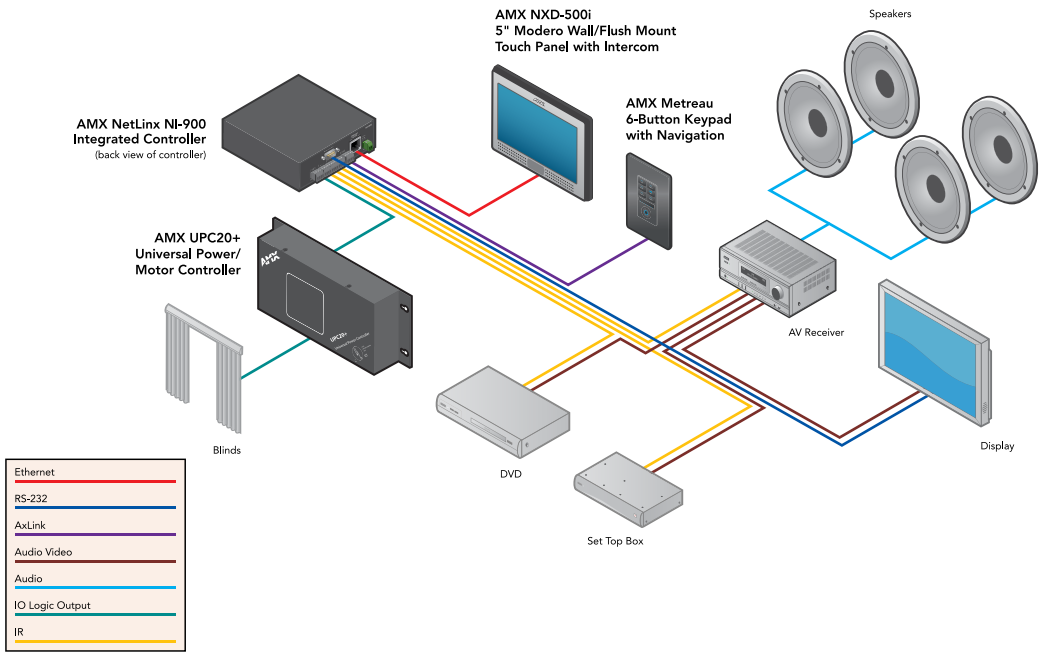
D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

JITC IA CERTIFICATION
Joint Interoperability Test Command (JITC) Information Assurance certification ensures that this product can be connected to the Defense Information Systems Network, operate to maximum performance on the network and remain secure.

A CLOSER LOOK





SPECIFICATIONS

DIMENSIONS (HWD)
- 1 9/16" x 5 9/16" x 5 1/8" (4.01 cm x 14.10 cm x 13 cm)
- RU: 1

WEIGHT

1.30 lbs (590 g)

POWER
- 300 mA @ 12 VDC
- Power requirements are usage dependent

ENCLOSURE

Metal with black matte finish

ONBOARD MASTER

304 MIPS

CERTIFICATIONS

FCC Part 15 Class B, CE, and IEC 60950

FRONT PANEL COMPONENTS
- Program Port
- Configuration DIP Switch: Sets the communication parameters for the Program port
- IR RX LED: Red LED lights when IR data is being received via the rear IR RX port
- IR LEDs: Three red LEDs light during the transmission of IR or Serial data via the rear IR port
- I/O LEDs: Four yellow LEDs light when the rear I/O channels 1-4 are active. LED indicator for each I/O port reflects the state of that particular port
- Serial LEDs
- LINK/ACT: Green LED lights when the Ethernet cable is connected and an active link is established. This LED also blinks when receiving Ethernet data packets
- Status: Green LED lights when the Controller is programmed and communicating properly
- Output: Red LED lights when the Controller transmits data, sets channels, sends data strings, etc.
- Input: Yellow LED lights when the Controller receives data from button pushes, strings, commands, channel levels, etc.
- ID Pushbutton: Sets the NetLinx ID (Device only) assignment for the device

REAR PANEL CONNECTORS
- RS-232/422/485 (Port 1)
- IR RX (Port 6)
- Digital I/O (Port 5)
- IR/Serial (Ports 2 - 4)
- AxLink LED
- AxLink Port: 4-pin 3.5 mm mini-Phoenix (male) connector provides data and power to external control devices
- Ethernet Port: RJ-45 port for 10/100 Mbps communication. LEDs show communication activity, connection status, speeds, and mode information:
  - SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps.
  - L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
- Power Port: 2-pin 3.5 mm mini-Phoenix (male) connector

ENVIRONMENTAL
- Operating Temperature: 0° C (32° F) to 50° C (122° F)
- Operating Humidity: 20% to 85% RH
- Heat Dissipation (Typical): 12.3 BTU/hr

INCLUDED ACCESSORIES
- 2-pin 3.5 mm mini-Phoenix female PWR connector (41-5025)
- 6-pin 3.5 mm mini-Phoenix female I/O connector (41-5063)
- Three CC-NIRC IR Emitters
- Two 4-pin 3.5 mm mini-Phoenix female connectors (41-5047)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	358
AC-RK	Accessory Rack Kit	(FG515)	329
AC-SMB	Surface Mounting Bracket	(FG525)	329
CC-232	RS232/422 Cables		364
CC-NIRC	IR Cables	(FG10-000-11)	364

3 | 4 | 4 | 4
Serial • Relay • IR • Digital I/O

NI-2100

NetLinx Integrated Controller

NI-2100 Controller	(FG2105-04)
NI-2100 Controller with ICSNet	(FG2105-14)

OVERVIEW

The NI-2100 is ideal for control and automation of medium-sized rooms and multi-room applications. The NI-2100 has 64MB of onboard RAM and is Device Discovery enabled to simplify programming by standardizing device and function definitions, default touch panel button assignments, and control and feedback methods.

COMMON APPLICATION

The NI-2100 is a good fit for medium-sized rooms or multi-room applications in home theaters, whole homes, hotel rooms and other environments.

FEATURES

- 3 Configurable RS-232 / RS-422 / RS-485 Serial ports
- 4 Relays
- 4 IR / Serial ports
- 4 Digital I/O ports
- 2 Communication Networks: AxLink and Ethernet (TCP/IP)
- 404 MIPS processor speed
- 64 MB RAM
- 2 GB CompactFlash (upgradeable to 4 G)
- 1 MB Non-Volatile Memory
- AMX Device Discovery enabled
- JITC Compliant

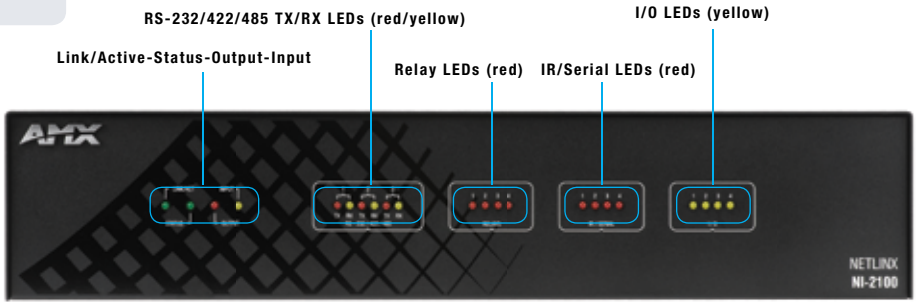
TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

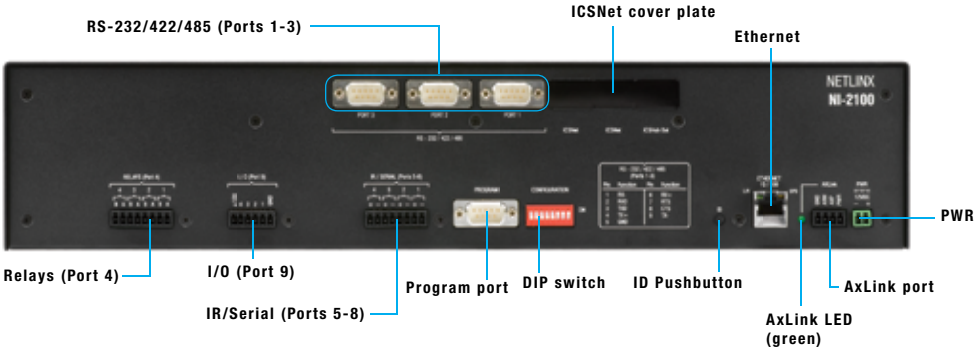
D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

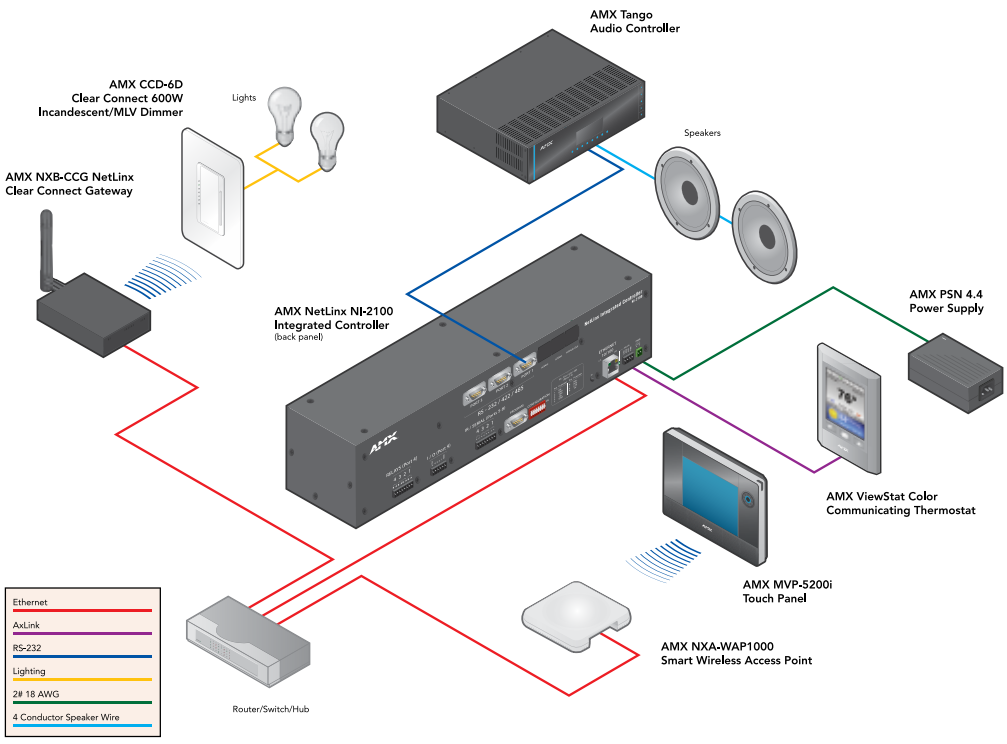
COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

JITC IA CERTIFICATION
Joint Interoperability Test Command (JITC) Information Assurance certification ensures that this product can be connected to the Defense Information Systems Network, operate to maximum performance on the network and remain secure.

A CLOSER LOOK







SPECIFICATIONS

DIMENSIONS (HWD)
- 3 1/2" x 17" x 3 1/2" (8.8 cm x 43.2 cm x 8.8 cm)
- RU: 2

WEIGHT
4.50 lbs (2.04 kg)

POWER
700 mA @ 12 VDC

ENCLOSURE
Metal with black matte finish

MEMORY
- 64 MB SDRAM
- 1 MB of Non-volatile SRAM

COMPACT FLASH
2 GB Card or more (upgradeable)

ONBOARD MASTER
404 MIPS

CERTIFICATIONS
FCC Part 15 Class B, CE, and IEC 60950

FRONT PANEL COMPONENTS
- LINK/ACT: Green LED blinks when the Ethernet cables are connected and terminated correctly. Also blinks when receiving Ethernet data packets
- Status: Green LED blinks to indicate that the system is programmed and communicating properly
- Output: Red LED blinks when the Controller transmits data, sets channels and sends data strings, etc.
- Input: Yellow LED blinks when the Controller receives data from button pushes, strings, commands, channel levels, etc.
- RS-232/422/485 LEDs
- Relay LEDs
- IR/Serial LEDs
- I/O LEDs
- Rack-mount brackets: Provides an installation option for the Integrated Controller to be mounted into an equipment rack, when used with the Installation Kit (KA2105-01)

REAR PANEL CONNECTORS
- RS-232/422/485 (Ports 1 - 3)
- ICSNet: Two RJ-45 connectors for ICSNet interface (provided by ICSNet daughter card)
- ICSHub Out: RJ-45 connector provides data to a Hub connected to the Controller (provided by ICSNet daughter card)
- Relay (Port 4)
- Digital I/O (Port 9)
- IR/Serial (Ports 5 - 8)
- Program Port
- Configuration DIP Switch: Sets the communication parameters for the Program port
- ID Pushbutton
- Ethernet Port: RJ-45 port for 10/100 Mbps communication. LEDs show communication activity, connection status, speeds, and mode information:
  - SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps.
  - L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
- AxLink LED: Green LED indicates the state of the AxLink port.
- AxLink Port: 4-pin 3.5 mm mini-Phoenix (male) connector that provides data and power to external control devices
- Power Port: 2-pin 3.5 mm mini-Phoenix (male) connector.

ENVIRONMENTAL
- Operating Temperature: 0° C (32° F) to 50° C (122° F)
- Operating Humidity: 20% to 85% RH
- Heat Dissipation (Typical): 28.7 BTU/hr

INCLUDED ACESSORIES
- 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-5025)
- 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047)
- 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)
- Two CC-NIRC IR Emitters
- Two removable rack ears (62-2105-07)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	359
NXA-ICSNET	NetLinx ICSNet Communication Network Card	(FG2105-10)	332
NXA-CF2NI	CompactFlash Upgrade	(FG21116-xx)	331
CC-232	RS232/422 Cables		364
CC-NIRC	IR Cables	(FG10-000-11)	364

7 | 8 | 8 | 8
Serial • Relay • IR • Digital I/O

NI-3100

NetLinx Integrated Controller

NI-3100 Controller	(FG2105-05)
NI-3100/256 Controller with 256MB RAM	(FG2105-25)
NI-3100/256/ICS Controller with 256MB RAM and ICSNet	(FG2105-35)
NI-3100/ICS Controller with ICSNet	(FG2105-15)

OVERVIEW

With the ability to integrate a large number of devices, the NI-3100 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 areas. With these technology-driven environments, the NI-3100 also provides solutions for future expansion and enables the addition of more devices and control capabilities. Offers higher performance with an ultra-fast processor, 64MB of onboard RAM and is AMX Device Discovery enabled.

COMMON APPLICATION

The NI-3100 unit is ideally suited to the requirements of larger areas or multiple rooms with advanced control and automation features.

FEATURES

- 7 Configurable RS-232 / RS-422 / RS-485 Serial ports
- 8 Relays
- 8 IR / Serial ports
- 8 Digital I/O ports
- 2 Communication Networks: AxLink and Ethernet (TCP/IP)
- 404 MIPS processor speed
- 64 MB RAM or 256 MB RAM
- 2 GB CompactFlash (upgradeable to 4 GB)
- 1 MB Non-Volatile Memory
- AMX Device Discovery enabled
- JITC Compliant

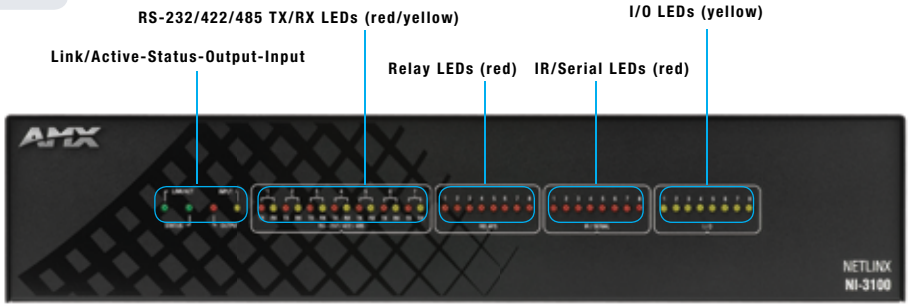
TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

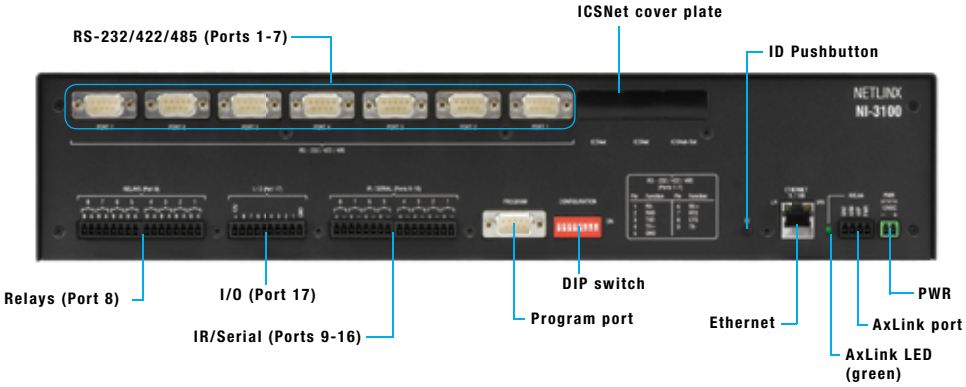
D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

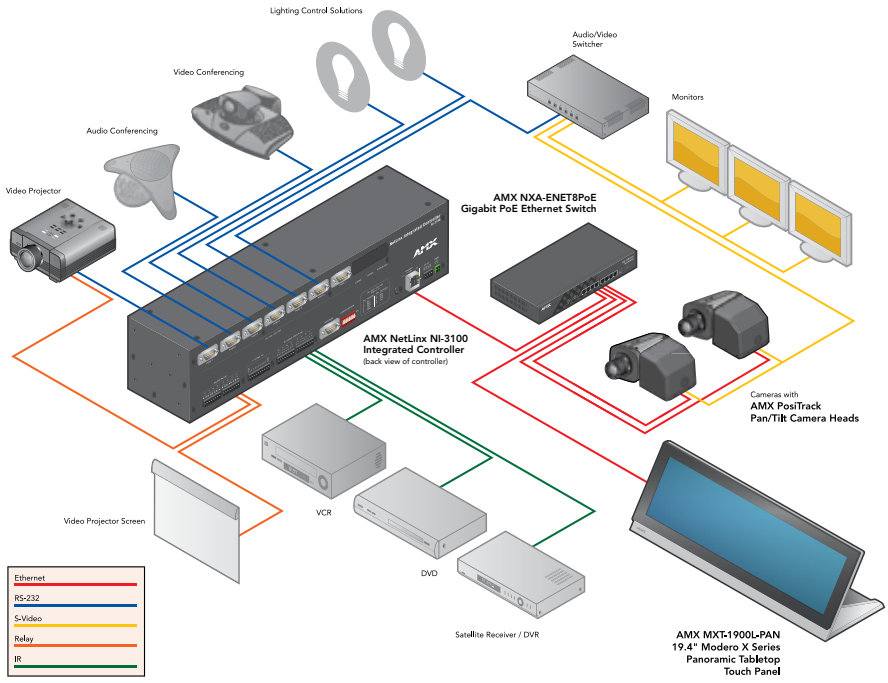
COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

JITC IA CERTIFICATION
Joint Interoperability Test Command (JITC) Information Assurance certification ensures that this product can be connected to the Defense Information Systems Network, operate to maximum performance on the network and remain secure.

A CLOSER LOOK







SPECIFICATIONS

DIMENSIONS (HWD)
- 3 1/2" x 17" x 3 1/2" (8.8 cm x 43.2 cm x 8.8 cm)
- RU: 2

WEIGHT
4.55 lbs (2.06 kg)

POWER
900 mA @ 12 VDC

ENCLOSURE
Metal with black matte finish

MEMORY
- 64 MB SDRAM (FG2105-05 & FG2105-15)
- 256 MB RAM (FG2105-25 & FG2105-35)
- 1 MB of Non-volatile SRAM

COMPACT FLASH
512 MB Card or more (upgradeable)

ONBOARD MASTER
404 MIPS

CERTIFICATIONS
FCC Part 15 Class B, CE, and IEC 60950

FRONT PANEL COMPONENTS
- LINK/ACT
- Status: Green LED blinks to indicate that the system is programmed and communicating properly
- Output: Red LED blinks when the Controller transmits data, sets channels and sends data strings, etc.
- Input: Yellow LED blinks when the Controller receives data from button pushes, strings, commands, channel levels, etc.
- RS-232/422/485 LEDs
- Relay LEDs
- IR/Serial LEDs
- I/O LEDs
- Rack-mount brackets: Provides an installation option for the Integrated Controller to be mounted into an equipment rack, when used with the Installation Kit (KA2105-01)

REAR PANEL CONNECTORS
- RS-232/422/485 (Ports 1 - 7)
- ICSNet: Two RJ-45 connectors for ICSNet interface (provided by ICSNet daughter card)
- ICSHub Out: RJ-45 connector provides data to a Hub connected to the Controller (provided by ICSNet daughter card)
- Relay (Port 8)
- Digital I/O (Port 17)
- IR/Serial (Ports 9 - 16)
- Program Port
- Configuration DIP Switch: Sets the communication parameters for the Program port
- ID Pushbutton
- Ethernet Port: RJ-45 port for 10/100 Mbps communication. LEDs show communication activity, connection status, speeds, and mode information:
  - SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps.
  - L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
- AxLink LED
- AxLink Port: 4-pin 3.5 mm mini-Phoenix (male) connector that provides data and power to external control devices
- Power Port: 2-pin 3.5 mm mini-Phoenix (male) connector

ENVIRONMENTAL
- Operating Temperature: 0° C (32° F) to 50° C (122° F)
- Operating Humidity: 20% to 85% RH
- Heat Dissipation (Typical): 36.9 BTU/hr

INCLUDED ACCESSORIES
- 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-5025)
- 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047)
- 10-pin 3.5 mm mini-Phoenix (female) I/O connector (41-5107)
- Two 8-pin 3.5 mm mini-Phoenix female Relay connectors (41-5083)
- Two CC-NIRC IR Emitters
- Two removable rack ears (62-2105-07)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	359
NXA-ICSNET	NetLinx ICSNet Communication Network Card	(FG2105-10)	332
NXA-CF2NI	CompactFlash Upgrade	(FG21116-xx)	331
CC-232	RS232/422 Cables		364
CC-NIRC	IR Cables	(FG10-000-11)	364

6 | 8 | 8 | 8
Serial • Relay • IR • Digital I/O

NI-3101-SIG

Signature Series NetLinx® Integrated Controller

(FG2105-08)

OVERVIEW

With its gloss-black face, blue power bar and blue and white status LEDs, the NI-3101-SIG can be placed on open racks, open shelves, tables, home theaters or behind the scenes in a rack. Measuring just 1 rack unit (RU:1) high, the NI-3101-SIG frees up space for other components while the extended rack depth (10") simplifies rear connections.

With extremely fast 32-bit processing and 64MB of onboard RAM, the NI-3101-SIG is capable of processing thousands of control and automation commands per second. Whether your control requirements are simple or sophisticated, the NI-3101-SIG is fast, accurate and immediate. In addition, it features a convenient USB programming port to simplify configuration.

COMMON APPLICATION

The NI-3101-SIG is ideal for controlling devices in large areas and multiple rooms. Its sleek styling and professional showroom finish allow it to be displayed prominently in home theater environments or work equally well behind the scenes in a rack.

FEATURES

- 6 Configurable RS-232 / RS-422 / RS-485 Serial Ports
- 8 Relays
- 8 IR / Serial ports
- 8 Digital I/O ports
- 2 Communication Networks: AxLink and 10/100 Ethernet (TCP/IP)
- Integrated USB programming port
- 404 MIPS processor speed
- 64 MB RAM
- 256 MB Flash Memory
- 1 MB Non-Volatile Memory
- AMX Device Discovery enabled
- JITC Compliant

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

WATCH THE VIDEO
See the NI-3101-SIG in action by watching the video profile online at: www.amx.com/assets/videos/NI-3101-SIG.mp4

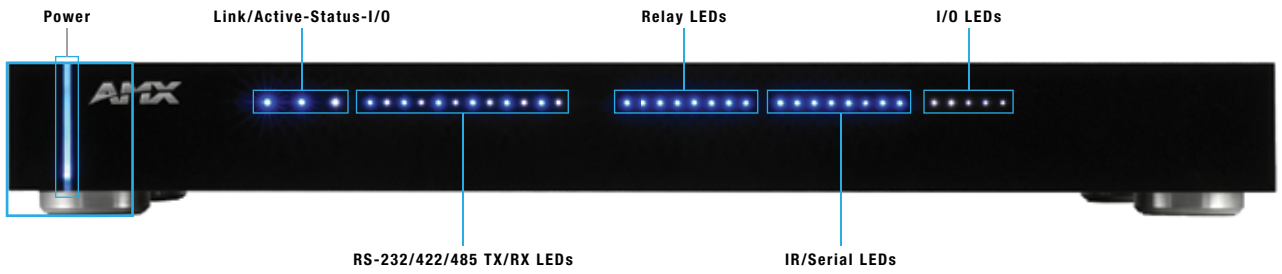
D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

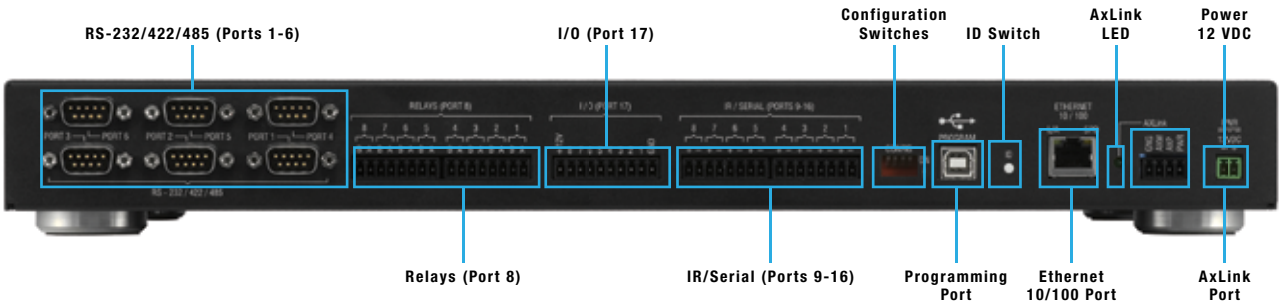
COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

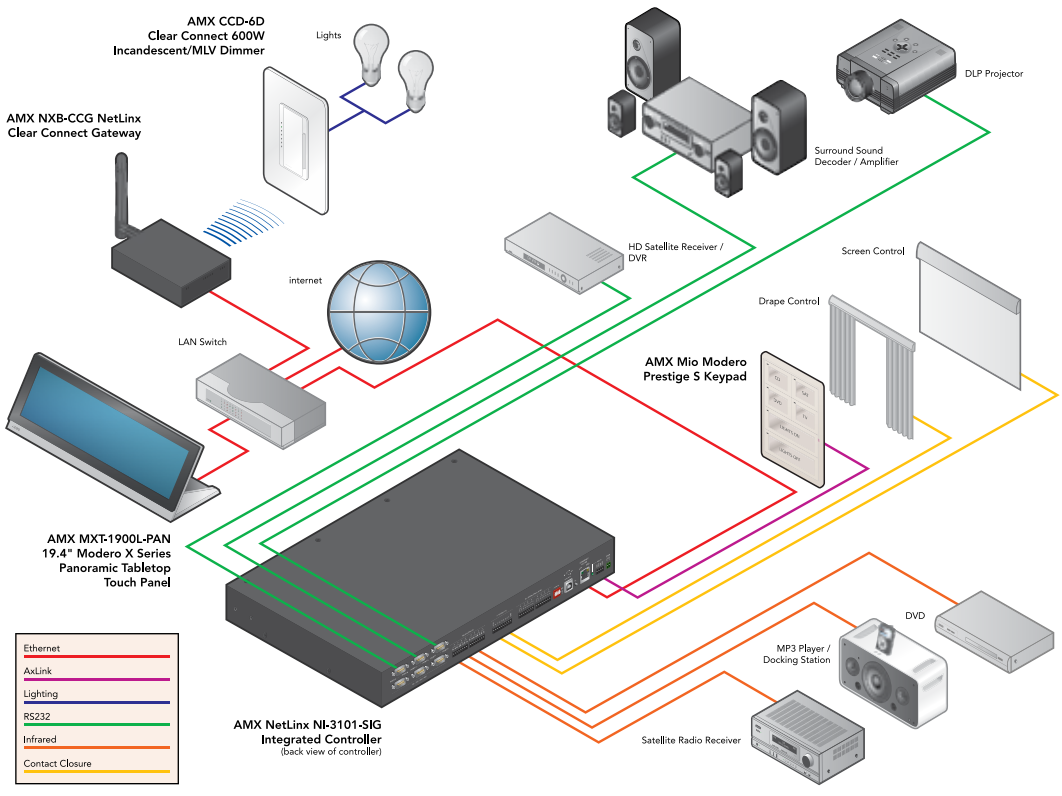
JITC IA CERTIFICATION
Joint Interoperability Test Command (JITC) Information Assurance certification ensures that this product can be connected to the Defense Information Systems Network, operate to maximum performance on the network and remain secure.

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	359
CC-232	RS232/422 Cables		364
CC-NIRC	IR Cables	(FG10-000-11)	364
CC-NET	Cat5 Ethernet Cable	(FG10-051-10)	362
CC-USB-NI	USB Programming Cable	(FG10-2105)	362

A CLOSER LOOK







SPECIFICATIONS

DIMENSIONS (HWD)
- 2" x 17" x 10" (5.1 cm x 43.2 cm x 25.4 cm)
- RU: 1

WEIGHT
6.95 lbs (3.15 kg)

POWER
900 mA @ 12 VDC

ENCLOSURE
Metal with black matte finish and translucent polycarbonate faceplate

ONBOARD MASTER
Processing Power: 32-bit microprocessor, 404 MIPS, Real-time operating system
Memory: Volatile – 64 MB, Non-Volatile – 1 MB, Flash – 256 MB
Networking:
- AxLink – 4-wire network (20.8 kbps) connects up to 255 Axcess devices, operates up to 3,000 feet of wiring and supplies 12 VDC power
- Ethernet – Direct 10/100 BaseT Ethernet networking

Ethernet Protocols used by NI-3101-SIG
- ICSP – peer to peer protocol used for both master-to-master and master-to-device communications
- ICMP – To connect over a network, ping a NI-3101-SIG
- Telnet – NetLinx telnet server provides a mechanism to configure and diagnose a NetLinx system
- HTTP – NI-3101-SIG has a built-in web server that complies with the HTTP 1.0 specification and supports all of the required features of HTTP v1.1
- FTP – NI-3101-SIG has a built-in FTP server that conforms to RFC
- integration! Solutions – uses port 10500 for XML based communication protocol

CONTROL PORTS
- Six Serial data control ports (RS-232/422/485), with XON/XOFF and CTS/RTS, 300-115,200 baud
- Eight IR/Serial ports for control of up to 1.142 MHz carrier frequency
- Eight I/O channels for contact closure, 0-5 VDC voltage sensing, or interactive power sensing for IR ports
- Eight Relays - single-pole single-throw relay ports, independently controlled

FRONT PANEL COMPONENTS:

LED INDICATORS
- LNK/ACT: Blue LED lights when the Ethernet cables are connected and terminated correctly and blinks when receiving Ethernet data packets
- Status: Blue LED blinks to indicate that the system is programmed and communicating properly
- Output: Blue LED blinks when the Master transmits data, sets channels on and off, sends data strings, etc.
- Input: White LED blinks when the Master receives data from button pushes, strings, commands, channel levels, etc.

RS-232/422/485 LEDS
- Six sets of blue and white LEDs light to indicate Ports 1-6 are transmitting or receiving RS-232, 422, or 485 data
- TX LEDs (blue) blink when transmitting data
- RX LEDs (white) blink when receiving data

RELAY LEDS
Eight blue LEDs light to indicate relay channels 1-8 are active (closed) on Port 8

IR/SERIAL LEDS
Eight blue LEDs light to indicate the IR/Serial ports 9-16 are transmitting control data

I/O LEDS
Eight white LEDs light when the I/O channels 1-8 are active on Port 17

REAR PANEL COMPONENTS

POWER CONNECTOR
2-pin (male) green captive-wire connector for 12 VDC power supply

ETHERNET 10/100 PORT
RJ-45 Ethernet 10/100 connector. Automatically negotiates connection speed and whether to use half or full duplex mode

AXLINK CONNECTOR
Black 4-pin (male) captive-wire connector that provides data and power to external control devices (6 A max power rating)

PROGRAM PORT
USB connector that supports USB communications to a PC for system programming and diagnostics

CONFIGURATION DIP SWITCH
4-position DIP switch

ID BUTTON
Pushbutton sets device address ID (in conjunction with NetLinx Studio v1.2 build 200 or higher software program)

RS-232/422/485: (PORTS 1-6)
Six RS-232/422/485 control ports using DB-9 (male) connectors with XON/XOFF (transmit on/transmit off), CTS/ RTS (clear to send/ready to send), and 300-115,200 baud

RELAYS (PORT 8)
- 8-channel single-pole single throw relay ports
- Each relay is independently controlled
- Supports up to 8 independent external relay devices
- Each relay can switch up to 24 VDC or 28 VAC @ 1 A
- Two 8-pin mini-Phoenix connectors (3.5 mm) provide relay termination

DIGITAL I/O (PORT 17)
- 8-channel binary I/O port for contact closure
- Each input is capable of 0-5 VDC voltage sensing. Input format is software selectable
- One 10-pin mini-Phoenix connector (3.5 mm) provide I/O port termination

IR/SERIAL (PORTS 9-16)
- Eight IR/Serial control ports support high-frequency carriers up to 1.142 MHz
- Each output is capable of two electrical formats: IR or Serial
- Eight IR/Serial data signals can be generated simultaneously
- Two 8-pin mini-Phoenix connectors (3.5 mm) provide IR/ Serial port termination

ENVIRONMENTAL
- Operating Temperature: 0° C (32° F) to 50° C (122° F)
- Operating Humidity: 20% to 85% RH
- Heat Dissipation (Typical): 36.9 BTU/hr

INCLUDED ACCESSORIES
- Removable rack ears allow for tabletop, under-counter, and front/rear rack mounting
- Removable feet give a finished look and provide spacing between stacked components
- Two 8-pin mini-Phoenix female connectors (41-5083)
- One 10-pin mini-Phoenix female connector (41-5107)
- Two CC-NIRC IR Emitters (FG10-000-11)
- One 4-pin 3.5 mm mini-Phoenix AxLink connector (41-5047)
- One 2-pin mini-Phoenix PWR connector (41-5025)
- One Relay Terminal Common Strip (41-2105-01)
- Four Rack mount screws (80-0186)
- Four washers (80-0342)

US SALES AND SUPPORT **800.222.0193** • INTERNATIONAL SALES AND SUPPORT **+1.469.624.7400** • **www.amx.com**

7 | 8 | 8 | 8
Serial • Relay • IR • Digital I/O

NI-4100

NetLinx Integrated Controller

NI-4100 Controller	(FG2105-06)
NI-4100/256 Controller with 256MB RAM	(FG2105-26)

OVERVIEW

The NI-4100 provides versatility with the ability to integrate the largest number of devices in the NI Series of Master Controllers, including projectors, lighting, DVD and Blu-Ray players, thermostats and other electronic equipment. In these technology-driven environments, this solution allows for the future addition of more devices and control capabilities. With a perfect mix of compatible formats, the NI-4100 offers flexibility and customization for businesses experiencing rapid growth and for homes that demand seamless integration of technology and design. The NI-4100 provides higher performance with a faster processor, 64MB of onboard RAM and Duet-compatibility.

COMMON APPLICATION

The NI-4100 is geared to meet the high-end control and automation requirements of the most sophisticated and complex commercial and residential installations.

FEATURES

- 7 Configurable RS-232 / RS-422 / RS-485 Serial ports
- 8 Relays
- 8 IR / Serial ports
- 8 Digital I/O ports
- 3 Communication Networks: AxLink, ICSNet and Ethernet (TCP/IP)
- 4 NetLinx Control Card Expansion slots that support all NXC control cards
- 404 MIPS processor speed
- 64 MB RAM or 256 MB RAM
- 2 GB CompactFlash (upgradeable to 4 GB)
- 1 MB Non-Volatile Memory
- AMX Device Discovery enabled
- JITC Compliant

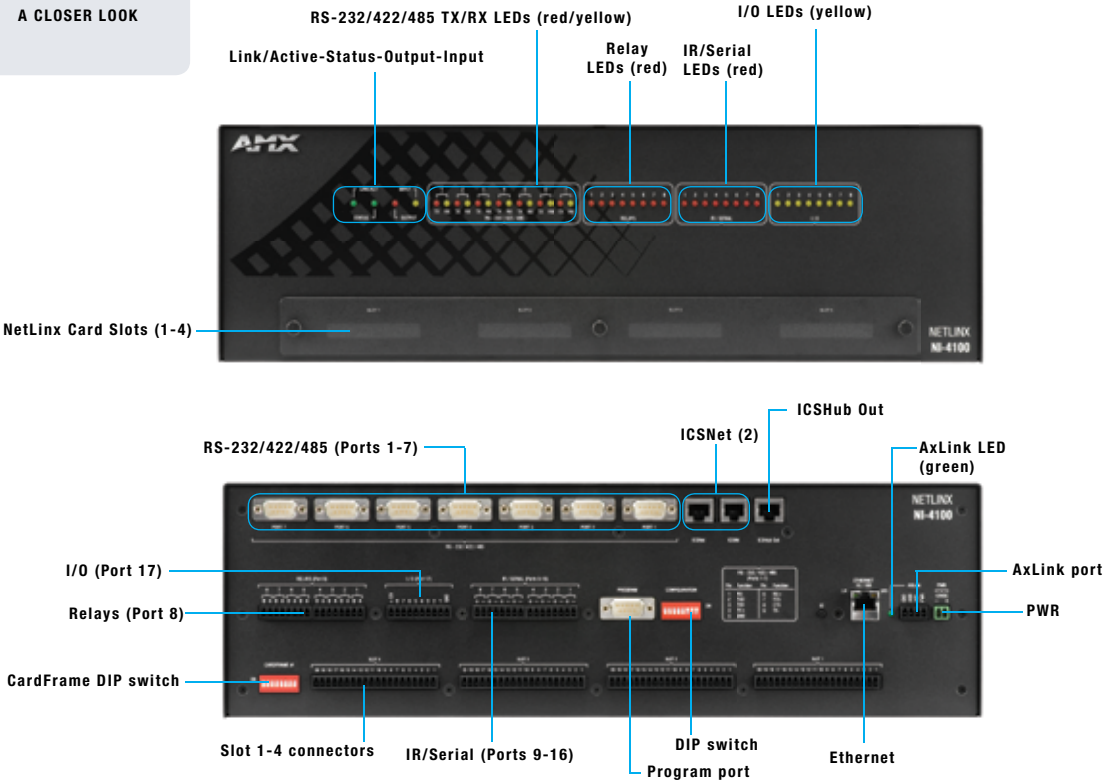
TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

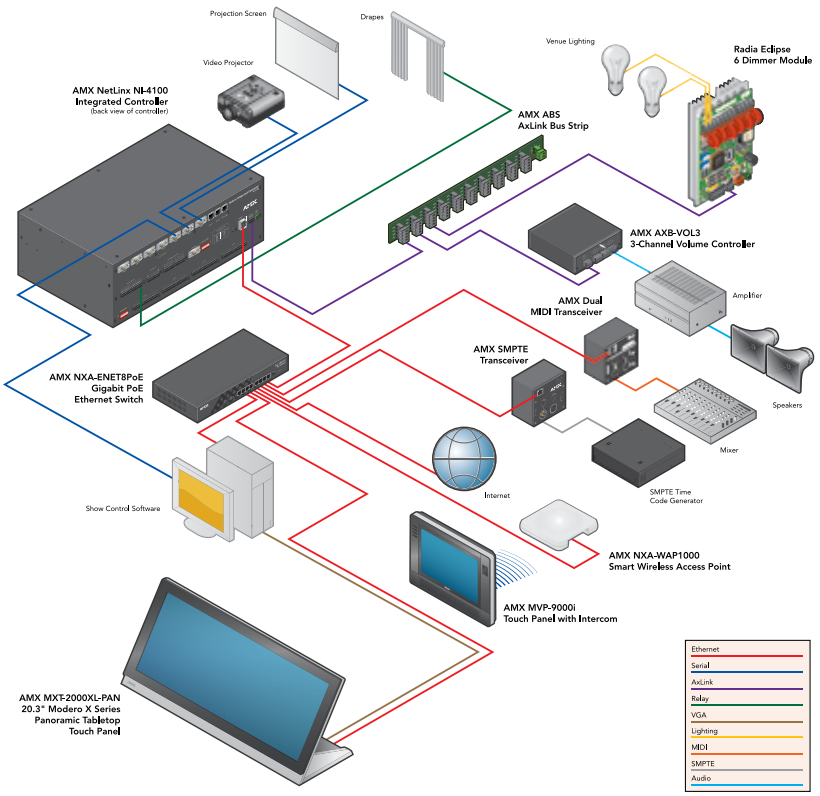
D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

JITC IA CERTIFICATION
Joint Interoperability Test Command (JITC) Information Assurance certification ensures that this product can be connected to the Defense Information Systems Network, operate to maximum performance on the network and remain secure.

A CLOSER LOOK





SPECIFICATIONS

DIMENSIONS (HWD)
- 5 3/16" x 17" x 9 5/16" (13.2 cm x 43.2 cm x 23.7 cm)
- RU: 3

WEIGHT
9.15 lbs (4.15 kg)

POWER
900 mA @ 12 VDC

ENCLOSURE
Metal with black matte finish

MEMORY
- 64 MB SDRAM (FG2105-06)
- 256 MB RAM (FG2105-26)
- 1 MB of Non-volatile SRAM

COMPACT FLASH
2 GB Compact Flash (upgradeable to 4 GB factory programmed)

ONBOARD MASTER
404 MIPS

CERTIFICATIONS
FCC Part 15 Class B, CE, and IEC 60950

FRONT PANEL COMPONENTS
- LINK/ACT: Green LED blinks when the Ethernet cables are connected and terminated correctly. Also blinks when receiving Ethernet data packets
- Status: Green LED blinks to indicate that the system is programmed and communicating properly
- Output: Red LED blinks when the Controller transmits data, sets channels, sends data strings, etc.
- Input: Yellow LED blinks when the Controller receives data from button pushes, strings, commands, channel levels, etc.
- RS-232/422/485 LEDs
- Relay LEDs
- IR/Serial LED
- I/O LEDs
- NetLinx Control Card Slot 1 - 4
- Rack-mount brackets: Provides an installation option for the Integrated Controller to be mounted into an equipment rack, when used with the Installation Kit (KA2105-01)

REAR PANEL CONNECTORS
- RS-232/422/485 (Ports 1 - 7)
- ICSNet: Two RJ-45 connectors for ICSNet interface (included)
- ICSHub Out: RJ-45 connector provides data to a Hub connected to the Controller (included)
- Relay (Port 8)
- Digital I/O (Port 17)
- IR/Serial (Ports 9 - 16)
- Program Port
- Configuration DIP Switch: Sets the communication parameters for the Program port
- ID Pushbutton: Sets the NetLinx ID (Device only) assignment for the device
- Ethernet Port: RJ-45 port for 10/100 Mbps communication. LEDs show communication activity, connection status, speeds, and mode information:
  - SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps.
  - L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
- AxLink LED: Green LED indicates the state of the AxLink port
- AxLink Port: 4-pin 3.5 mm mini-Phoenix (male) connector that provides data and power to external control devices
- Power Port: 2-pin 3.5 mm mini-Phoenix (male) connector
- CardFrame Number DIP Switch

ENVIRONMENTAL
- Operating Temperature: 0° C (32° F) to 50° C (122° F)
- Operating Humidity: 20% to 85% RH
- Heat Dissipation (Typical): 36.9 BTU/hr

INCLUDED ACCESSORIES
- 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-5025)
- 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047)
- 10-pin 3.5 mm mini-Phoenix (female) I/O connector (41-5107)
- Two 8-pin 3.5 mm mini-Phoenix (female) Relay connectors (41-5083)
- Two CC-NIRC IR Emitters
- Two removable rack ears (62-2105-07)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	358
NXA-CF2NI	CompactFlash Upgrade for NI Series Controllers	(FG21116-xx)	331

6 | 12 | 8 | 8
Serial • Relay • IR • Digital I/O

NXI

NetLinx Integrated Controller (No Master)

(FG2101)

OVERVIEW

The NetLinx Controller provides incredibly powerful control and networking capabilities and instantly commands projectors, window treatments, security, lighting and even PCs with a full array of RS-232/422/485 ports, IR/Serial ports, Inputs/Output channels and relays. Measuring only 1 rack unit (1U) the NXI NetLinx Integrated Controller frees up space for other components.

COMMON APPLICATION

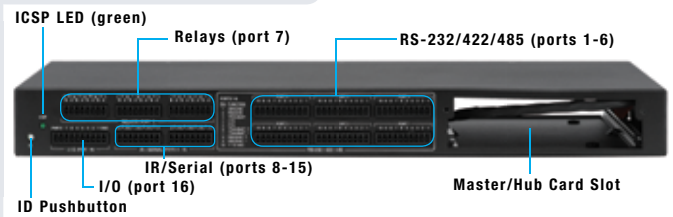
The NetLinx Controller's sleek modular design and compact size make it perfect for open shelves and tables within home theaters and residences or behind the scenes in a rack used for commercial applications.

FEATURES

- 6 Configurable RS-232 / RS-422 / RS-485 Serial ports
- 12 Relays
- 8 IR / Serial ports
- 8 Digital I/O ports

D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

A CLOSER LOOK



SPECIFICATIONS

DIMENSIONS (HWD)
- 1 3/4" x 17" x 8 13/16" (4.4 cm x 43.2 cm x 22.4 cm)
- RU: 1

WEIGHT (WITHOUT PROCESSOR)
4.0 lbs (1.8 kg)

POWER
1.09 mA @ 12 VDC

ENCLOSURE
Metal with black matte finish

MEMORY
- 64K of IR memory
- 32K IR memory for IR ports 8-11
- 32K IR memory for IR ports 12-15

PORT ASSIGNMENTS
- Ports 1-6 = RS-232/422/485 Ports
- Port 7 = 12 Relays
- Ports 8-15 = IR/IR Serial Ports
- Port 16 = 8 I/O Channels

CERTIFICATIONS
FCC Part 15 Class B, CE, and IEC 60950

FRONT PANEL COMPONENTS
- Master/Hub Card slot: Accepts an NXC-ME260 or Hub Card
- RS-232/422/485 TX/RX LEDs: Six sets of red and yellow LEDs light to indicate ports 1-6 are transmitting or receiving RS-232, 422, or 485 data:
  - TX LEDs (red) blink when transmitting data
  - RX LEDs (yellow) blink when receiving data
- Relay LEDs: Twelve red LEDs light to indicate relay channels 1-12 are active (closed)
- IR/Serial LEDs: Eight red LEDs light to indicate IR/Serial channels 1-8 are transmitting control data
- I/O LEDs: Eight yellow LEDs light when I/O channels 1-8 are active

REAR PANEL CONNECTORS
- ID Pushbutton: Sets the D:P:S assignment for the NXI
- ICSP LED: Green LED Blinks in unison with the Master card's NetLinx LED indicating the ICSP bus is synchronized. This LED flashes rapidly when the NXI is in ID Mode (see Using the ID Button for details)
- RS-232/422/485 (#1-6): Six RS-232/422/485 control ports with XON/XOFF (transmit on/transmit off), and CTS/RTS (clear to send/ready to send), 300-230,400 baud:
  - Channel range = 1-255
  - Channels 1-254 provide feedback only
  - Channel 255 (CTS Push channel) reflects the state of the CTS
  - Input if a 'CTSPSH' command was sent to the port
- Relays (#7): Twelve-channel relay port. Channel range = 1-12
  - You can connect up to 12 independent external relay devices to the Relay connectors on the NXI (Port 7)
  - Connectors labeled A are for common and B are for Output
  - Each relay is isolated and normally open
- IR/Serial (#8-15): Eight IR/Serial control ports that support high-frequency carriers up to 1.14 MHz:
  - Channel range = 1-32,000
  - Channels 1-253 (output): IR commands
  - Channel 254 (feedback): PowerFail (used with 'PON' and 'POF' commands)
  - Channel 255 (feedback): Power status (when IOLink is set)
- I/O (#16): 8-channel I/O port for contact closure, 0-5 VDC voltage sensing, or interactive power sensing for IR ports. Channel range = 1-8

ENVIRONMENTAL
Heat Dissipation (Typical): 44.7 BTU/hr

INCLUDED ACCESSORIES
- 4 CC-NIRC emitters
- Metal tab strips for commoning adjacent relays
- Rack-mount brackets adapt for rack, wall, or shelf mounting
- NetLinx faceplate

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXC-ME260/64	NetLinx Master Ethernet Card	(FG2010-64)	300
NXC-NH	ICSNet Hub Card	(FG2060)	321
NXC-COM2	Dual COM Port Control Card	(FG2022)	324
NXC-I/O10	Input/Output Control Card	(FG2021)	328
NXC-IRS4	4-Port IR/S Control Card	(FG2023)	323
NXC-REL10	Relay Control Card	(FG2020)	327
NXC-VAI4	Voltage Output/Analog Input Control Card	(FG2025)	325
NXC-VOL4	Volume Control Card	(FG2024)	326

NXF

NetLinx CardFrame (CardFrame Only)

(FG2001)

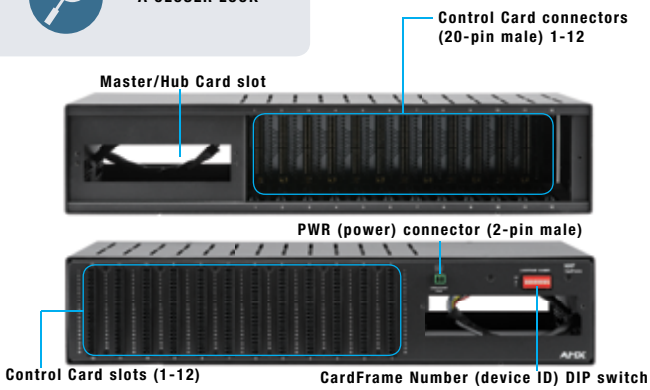
OVERVIEW

The NetLinx CardFrame is easy-to-use and easy-to-understand. Customize and control any connected device by simply inserting up to twelve NetLinx Control Cards directly into the front-access slots of the CardFrame. For maximum speed, add an optional Master Card with Ethernet which crunches code at great speeds, stores innovative AMX control solutions, and is capable of extending control over multiple networks.

D-TOOLS CERTIFIED PRODUCT

This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

A CLOSER LOOK



SPECIFICATIONS

DIMENSIONS (HWD)
- 3 1/2" x 17" x 9 5/8" (8.9 cm x 43.2 cm x 24.4 cm)
- RU: 2

WEIGHT

9.1 lbs (4.1 kg)

POWER

+12 VDC

ENCLOSURE

Metal with black matte finish

FRONT PANEL COMPONENTS
- Master/Hub Card Slot: Houses the Master or Hub Card
- Control Card Slots: 12 card slots for the NetLinx Control Cards that control devices connected to the CardFrame

REAR PANEL
- Control Card connectors (1-12) 20-pin black (male) connectors that connect the optional Control Cards and external equipment to the CardFrame
- POWER: 2-pin green (male) connector for connecting a 12 VDC power supply
- CardFrame can be powered via the Master Card (default) or by an external power supply connected to the CardFrame's PWR connector
- 256 CardFrames for total support of up to 3072 NetLinx Control Cards

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXC-ME260/64	NetLinx Master Ethernet Card	(FG2010-64)	300
NXC-NH	ICSNet Hub Card	(FG2060)	321
NXC-COM2	Dual COM Port Control Card	(FG2022)	324
NXC-I/O10	Input/Output Control Card	(FG2021)	328
NXC-IRS4	4-Port IR/S Control Card	(FG2023)	323
NXC-REL10	Relay Control Card	(FG2020)	327
NXC-VAI4	Voltage Output/Analog Input Control Card	(FG2025)	325
NXC-VOL4	Volume Control Card	(FG2024)	326

NXF-MINI

NetLinx Mini-CardFrame (CardFrame Only)

(FG2104)

OVERVIEW

The NetLinx Mini-CardFrame features front access to four expansion slots that accept any combination of compatible NetLinx Controller Cards. In addition to being compatible with the ME260/64 Master Card, NI-2100, NI-3100 and the NI-4100 NetLinx Controllers, the Mini-CardFrame extends the control capabilities of the AMX NetLinx Control System to a remote area or location up to 1,000 feet away through the power of the ICSNet data/power bus.

COMMON APPLICATION

The NXF-MINI NetLinx Mini-CardFrame is ideal for expansion for distributed systems needing additional IR, Relay, and Volume Control capabilities.

QUICK TIP
For additional expandability needs, multiple NetLinx Mini-CardFrames can be connected using ICSNet Hubs.

D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

SPECIFICATIONS

DIMENSIONS (HWD)
- 1 3/4" x 17" x 9 9/16" (4.5 cm x 43.2 cm x 24.3 cm) (width does not include mounting ears)
- RU: 1

WEIGHT
6.2 lbs (2.8 kg)

POWER
25 mA @ 12 VDC

ENCLOSURE
Metal with black matte finish

FRONT PANEL COMPONENTS
- NetLinx Control Card Slots 1- 4: Accept up to 4 compatible NetLinx Cards: such as the NXC-COM2, NXC-I/O10, etc.
- Rack-mount brackets: Provides an installation option for the NXF-MINI to be mounted into an equipment rack

REAR PANEL CONNECTORS
- CardFrame Number DIP Switch: Sets the starting address for the Control Cards in the CardFrame. The 8-position DIP switch address range is 1-3064. (Factory default CardFrame DIP switch value = 0). The Control Card address range is 1-3064
- NetLinx Control Card Connectors (1-4): Four 20-pin (male) connectors that bridge the gap between the Control Cards in the CardFrame and external equipment
- ICSNet Connector: Single RJ-45 connector for ICSNet interface
- Power Port: 2-pin 3.5 mm mini-Phoenix (male) connector

INCLUDED ACCESSORIES
- Removable rack ear set (62-2104-03). Allows for tabletop, under-counter, and front/rear rack mounting
- Three faceplate screws (80-0181)
- One 2-pin mini-Phoenix PWR connector (41-5025)
- Installation Kit (KA2104)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
NXC-COM2	Dual COM Port Control Card	(FG2022)	324
NXC-I/O10	Input/Output Control Card	(FG2021)	328
NXC-IRS4	4-Port IR/S Control Card	(FG2023)	323
NXC-REL10	Relay Control Card	(FG2020)	327
NXC-VAI4	Voltage Output/Analog Input Control Card	(FG2025)	325
NXC-VOL4	Volume Control Card	(FG2024)	326

NXC-ME260/64

NetLinx Master Ethernet Card

(FG2010-64)

OVERVIEW

The NetLinx NXC-ME260/64 Card supplies optimum control system performance. With the ability to respond 50 times faster than conventional control masters, the NXC-ME260/64 is propelled by the high-speed 257 MIPS ColdFire processor. The standard 32MB CompactFlash memory is expandable to 1G and beyond and Ethernet networking is built onboard. The NXC-ME260/64 also features enhanced Username and Password authentication, HTTPS and SSL certificate interaction, ICSP communication and encryption, and use of a pre-installed AMX SSL certificate.

FEATURES

- 1 AxLink Bus
- 1 Ethernet (TCP/IP) Port
- 2 ICSNet Ports
- 2 ICSHub Ports
- 257 MIPS processor speed
- 64 MB RAM
- 512 MB CompactFlash (upgradeable to 4 G)
- 1 MB Non-Volatile Memory

SPECIFICATIONS

DIMENSIONS (HWD)
- 1 5/16" x 5" x 8 13/16" (3.4 cm x 12.7 cm x 22.4 cm)
- RU: 1

WEIGHT
8.8 oz (250 g)

POWER
750 mA @ 12 VDC

MEMORY
- Compact Flash: 512 MB standard (upgradeable)
- Volatile: 64 MB
- Non-volatile: 1 MB

ENCLOSURE
Metal with black matte finish

FRONT PANEL COMPONENTS
- Program port: DB9 (male) connector that supports RS-232 communications to your PC for system programming and diagnostics. Set the port's communication speed with the Baud Rate DIP switch. Program ports are located on the front and rear panels of the Master Card for easy access. Because these ports share the same circuitry, they should never be used at the same time; doing so will result in communication and/or programming errors
- Status LED: Green LED blinks to indicate system and communication status
- Output LED: Red LED blinks when the Master Card transmits data, sets channels on and off, sends data strings, etc.
- Input LED: Yellow LED blinks when the Master Card receives data from button pushes, strings, commands, channel levels, etc.
- Program Port DIP Switch 8-position DIP switch on the front of the card for setting the baud rate for the Program port

REAR PANEL
- PWR connector: 2-pin (male) green captive-wire connector for 12 VDC power supply
- EXPANSION OUT: port RJ-11 connector connects to an AXB-SPE Slave Port Expander
- Ethernet 10/100 port: The (RJ-45) Ethernet Port default setting automatically negotiates the connection speed (10 Mbps or 100 Mbps) and whether to use half duplex or full duplex mode
- Ethernet 10/100 LEDs: Display communication activity, connections, speeds, and mode information.
- AxLink connector Black 4-pin (male) captive-wire connector that provides data and power to external control devices. Power rating = 6 A max; actual load depends on connected power supply
- AxLink Status LED: Green LED blinks to show AxLink and expansion port data activity
- PROGRAM port: 5-pin (male) gray connector for system programming and diagnostics. There is a Program port located on the front and rear of the Master Cards for easy access. Because these ports share the same circuitry, you should never use both ports at the same time. Doing so will result in communication and/or programming errors
- ICSNet connectors: Two RJ-45 connectors that provide power (500 mA) and data to external ICSNet devices
  - ICSNet LEDs - Indicate activity on that port.
- ICSHub In/Out connectors: Two RJ-45 connectors that provide data to other Hubs connected to the Master Card
  - ICSHub IN/OUT LEDs - Indicate activity on that port

ENVIRONMENTAL
Heat Dissipation (Typical): 30.7 BTU/hr

INCLUDED ACCESSORIES)
- 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-5025)
- 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047)
- 10-pin 3.5 mm mini-Phoenix (female) I/O connector (41-5107)
- Installation Kit (KA2105-01)
- Two 8-pin 3.5 mm mini-Phoenix (female) Relay connectors (41-5083)
- Two CC-NIRC IR Emitters
- Two removable rack ears (62-2105-07)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXS-MHS	Master/Hub Module Shell	(FG2009)	322
NXA-CFM	CompactFlash Upgrade for NXC-ME260/64	(FG2116-xx)	331
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	359
PSN2.8	13.5 VDC, 2.8 A Power Supply	(FG423-17)	357

6 | 8 | 8 | 8
Serial • Relay • IR • Digital I/O

DVX-3150HD

All-In-One Presentation Switcher

10x4 Switcher, 2x25 W Amp FG1905-15

OVERVIEW

The Enova DVX-3150HD is an all-in-one controller, AV matrix switcher, scaler, analog to digital signal converter, twisted pair transmitter and amplifier with built-in professional grade audio processing. Easily integrate HDCP into system designs and enjoy hassle free plug-and-play operation. No tools, no delays, and no key constraints – it just works with AMX's exclusive InstaGate Pro™ Technology. Designed to simplify system design and provide a future proof solution, the DVX-3150HD's multi-format video inputs support analog and digital signals including HDMI with HDCP sources - all in the same connector. The state-of-the-art professional grade audio DSP delivers quality audio throughout a room. Built-in SmartScale® Technology outputs video that is perfectly scaled for each connected display, eliminating the integration challenges that can occur when sources and displays have different optimal resolutions - making the DVX-3150HD easy to specify, easy to install and easy to use.

COMMON APPLICATIONS

Ideal All-In-One Presentation Switcher designed to dramatically simplify AV control and distribution in medium and large conference rooms, classrooms and auditoriums. The flexible DVX-3150HD is perfect for any room with a mix of analog and digital sources, multiple displays, or rooms that require support for video conferencing.

FEATURES

- **All-In-One Presentation Switcher in a 3RU Box** – Controller, matrix switcher, scaler, analog to digital converter, amplifier, plus twisted pair distribution and professional-grade audio DSP
- **HDMI/HDCP Switching with Simplicity of Analog** – End-to-end distribution of HDMI/HDCP without interruption or key constraints using InstaGate Pro Technology
- **Matrix Switching** – Freely route any input to any or all outputs without blocking - 10x4 video switcher and 14x4 audio switcher with audio breakaway
- **SmartScale Technology** – Automatically responds to the display's declared EDID information and scales the video to the best resolution and video parameters for that display without manual setup; this prevents inferior video quality when sources are forced to lower resolutions to support the least capable display in the system
- **AV and Control Over Twisted Pair** – Send audio, video, bi-directional control and Ethernet up to 100m over one standard twisted pair cable
- **Analog to Digital Video Conversion With Scaled Outputs** – Converts any source signal to digital and uses SmartScale Technology to automatically output video that is perfectly scaled for each connected display
- **Game Changing Device** – Standardizing on this box reduces Total Cost of Ownership
- **All-In-One Presentation Switcher** – Replaces the need for numerous individual components and equipment, allowing installers to save time and effort in configuring and programming
- **InstaGate Pro Technology** – Easily integrate HDCP into system designs and enjoy hassle-free matrix switching to all compliant displays; no tools, no delays, and no key constraints – it just works
- **Multi-Format Ports** – Built for analog signals - RGBHV, Component, S-Video, and Composite, and digital HDMI/HDCP and DVI signals - all on the same connector
- **Built-in Professional Grade Audio DSP** – Integrated digital signal processor's advanced capabilities, like independent 10-band parametric EQ, independent input gain adjustments and variable compression, allow precision tuning to match unique source and room attributes
- **3D Support** – Pass through latest video formats including 3D and Deep Color

- **Surround Sound Support** – Pass through high definition surround sound including DTS-HD and Dolby TrueHD
- **DXLink Twisted Pair Outputs** – Send audio, video and control to remote destinations up to 100m away over one twisted pair cable
- **Audio Breakaway** – Stereo audio from any analog input or de-embedded from any HDMI input can be broken away from its associated video, processed through the DSP, and switched independently to any analog, HDMI or S/PDIF audio output
- **Audio Matrix Switching** – Four independently switched and processed audio paths provide four unique volume, EQ, ducking and mixing configurations for perfectly tuned room audio as well as integration with audio/video conferencing, induction loop systems, voice re-enforcement speakers and audio recording devices
- **Enhanced Microphone Processing** – Independent 3-band parametric EQ, comopression, gating, auto-ducking, and limiting on each microphone input ensures crystal clear communication
- **HDCP Compliant**

DEALER BENEFITS

- **HDCP Made Easy as Analog** – No more time-consuming, cumbersome work-around tools to address HDCP key caching and resolution incompatibilities
- **Fully Integrated Solution** – All-in-one design simplifies system design, reduces programming time, and saves time and effort in installation
- **Professional Grade Audio** – Simplifies installation with built-in DSP, eliminating the need for an external audio processor

CUSTOMER BENEFITS

- **Reduce Costs and Save Space** – Realize significant cost savings and space savings with the DVX-3150's all-in-one-design compared to purchasing individual components
- **Picture Perfect with No Delay** – Delivers clean, crisp digital video to any display immediately upon request
- **Designed with Flexibility For the Future** - Built for today's AV needs, but ready for tomorrow's future advanced needs including 3D video and surround sound

BULLSEYE TARGET PRODUCT
This is a Target Product as defined in the U.S. BullsEye Partnership Program. Participating AMX Dealers can be rewarded for purchasing Target Products as a % of their total annual net revenue.

WATCH THE VIDEO
See the new DVX-3150HD All-In-One Presentation Switcher live from InfoComm 2011 by watching our video profile on YouTube at www.youtube.com/user/AMXtalk#p/u/3/RJkSfHNwKIg

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

DIGITAL SIGNAL PROCESSING
Enhance the beauty of sound in every room with AMX's DSP technology providing integrated 10-band EQ, volume, tone and balance on each output to easily support the acoustical attributes of each individual room / zone.

InstaGate Pro™ Technology
No tools, no delays and no key constraints. AMX's exclusive InstaGate Pro Technology allows traditionally key limited sources to be freely switched to any display without the typical HDCP delays.

SmartScale® Technology
Enjoy crystal clear perfect resolution on every display using AMX's exclusive SmartScale Technology which automatically outputs video that is perfectly scaled to each connected display.

SPECIFICATIONS

DIMENSIONS (HWD)
5.2" x 17" x 14" (13.2 cm x 43.2 cm x 35.6 cm)

WEIGHT
18.2 lb (8.26 Kg)

POWER
110-240V, 47/63 Hz AC supply

MEMORY
256 MB SDRAM
1 MB Non-volatile (NV) SRAM
256 MB FLASH

AMPLIFIER
2 x 25W into 8 Ohms Class D stereo amplifier

ENCLOSURE
Metal with black matte finish

INTEGRATED CONTROLLER
Equivalent of a NetLinx NI-3101-SIG Central Controller on-board

FRONT PANEL COMPONENTS
- LINK/ACT (green): Link/Activity LED blinks when receiving Ethernet data packets.
- STATUS (green): Status LED blinks to indicate that the system is programmed and communicating properly.
- INPUT (yellow): Input LED blinks to indicate that the Controller is receiving data.
- OUTPUT (red): Output LED blinks to indicate that the Controller is transmitting data.
- RS-232 / 422 / 485 (red/yellow): 6 sets of LEDs indicate that RS-232/422/485 Ports (1-6) are transmitting or receiving data.
- RELAYS (red): 8 LEDs indicate that one or more of the relay channels (1-8) are active (closed).
- IR/SERIAL (red): 8 LEDs indicate that one or more of the IR/Serial ports (1-8) are transmitting control data.
- I/O (yellow): 8 LEDs indicate that one or more of the I/O channels (1-8) are active.
- SWITCH pushbutton: Press to enter the SWITCH menu on the LCD display. Choose to switch audio, video or both from any input to any output. Press the TAKE pushbutton to implement the switch.
- TAKE pushbutton: While in the SWITCH menu, press to implement an audio/video switch. When not in the SWITCH menu, press to cycle through audio and/or video inputs.
- LCD display: Liquid crystal display (2 lines with 20 characters per line) indicates current volume level and displays the Video, Audio, and Tools menus.
- VIDEO MENU pushbutton: Press to access the Video menu on the LCD display. Multiple presses cycle through the various VIDEO menus.
- AUDIO MENU pushbutton: Press to access the Audio menu on the LCD display. Multiple presses cycle through the various AUDIO menus.
- Navigational pushbuttons: 4 directional buttons for navigating the options in the Video and Audio menu (on the LCD display).
- STATUS pushbutton: Press to access the STATUS menu on the LCD display.
- EXIT pushbutton: Press to exit any menu.
- VIDEO MUTE pushbutton: Press to mute/un-mute (enable/disable) all video output displays. Video Mute results in a blank screen on the output display.
- AUDIO MUTE pushbutton: Press to mute/un-mute all audio outputs.

REAR PANEL COMPONENTS
- RS-232/422/485 (Ports 1-6) provide serial control via DB9 (male) connectors:
  - XON/XOFF (transmit on/transmit off)
  - CTS/RTS (clear to send/ready to send)
  - 300-115,200 baud
- RELAYS (Port 8) provides relay control via two 8-pin 3.5 mm captive-wire connectors:
  - 8-channel single-pole single-throw relay ports
  - Each relay is independently controlled
  - Supports up to 8 independent external relay devices
  - Channel range = 1-8
  - Each relay can switch up to 24 VDC or 28 VAC @ 1 A
  - Two 8-pin 3.5 mm mini-Phoenix (female) connectors provide relay termination
- IR/SERIAL (Ports 9-16) provide IR/Serial control via 2-pin 3.5 mm captive-wire connectors:
  - Supports high-frequency carriers of up to 1.142 MHz
  - 8 IR/Serial data signals can be generated simultaneously
- I/O (Port 17) provides 8-channel binary I/O port for contact closure with each input being capable of voltage sensing.
- AUDIO INPUTS:
  - UNBALANCED AUDIO LINE INPUTS 4 1/8th-inch mini-jack connectors receive up to four unbalanced line-level audio inputs
    - Nominal input level: -10 dBV (0.3162 Vrms)
    - Maximum input level: 2 Vrms
    - Input impedance: >12k ohms unbalanced, >12k ohms balanced, DC coupled
  - BALANCED AUDIO INPUTS 4 3.5mm 5-pin captive-wire connectors receive up to four balanced/unbalanced line level audio inputs
    - Nominal input level: +4 dBu (1.228 Vrms) balanced or -10 dBV (0.3162 Vrms) unbalanced
    - Maximum input level: 2 Vrms
    - Input impedance: >12k ohms unbalanced, >12k ohms balanced, DC coupled
  - DIGITAL AUDIO INPUTS: supported on all HDMI inputs
  - MIC INPUTS: 2 3.5mm 3-pin captive-wire connectors receive up to 2 mono microphones (balanced or unbalanced audio and switchable Phantom Power).
- AUDIO OUTPUTS:
  - ANALOG AUDIO OUTPUTS:
    - AMP: 14-position captive wire connector provides amplified audio output with volume control
    - LINE: 3 3.5mm 5-pin captive-wire connector provides for fixed or variable, balanced or unbalanced, mono or stereo line level audio output
- DIGITAL AUDIO OUTPUTS:
  - S/PDIF: 1 Coaxial RCA connector provides digital S/PDIF audio output that can mirror any of the 4 analog audio outputs.
  - HDMI: Digital versions of any analog audio output or direct pass-through audio are provided on each HDMI output
  - DXLink: Mirrors associated HDMI audio output
- VIDEO INPUTS
  - 4 MULTI-FORMAT VIDEO INPUTS (1-4): 4 DVI-I input connectors provide multi-format video inputs for up to four video sources. Each VIDEO INPUT connector supports HDMI/HDCP, DVI, RGBHV, S-Video, composite, or component video input.
  - 6 HDMI INPUTS (5-10): 6 HDMI input connectors provide support for HDMI/HDCP or DVI video sources

- VIDEO OUTPUTS
- 4 HDMI OUTPUTS (1-4): 4 HDMI output connectors provide both digital video and audio. Supports HDCP
- 2 DXLINK OUTPUTS (1, 3): 2 DXLink CAT5 outputs mirror HDMI outputs 1 and 3. They provide digital video, audio, Ethernet and bi-directional control over Category Cable to DXLink Receivers. Supports HDCP.
- CONFIG DIP Switch: 8-position Master configuration DIP switch allows setting the Serial Programming port baud rate and onboard Master execution mode (PRD or normal)
- PROGRAM Port: DB-9 connector that supports RS-232 communications to a PC for system configuration and diagnostics
- ID Pushbutton: Black ID pushbutton sets the NetLinx Device ID assignments of the Internal Control Device. It has no effect on the Internal Switcher Device
- ETHERNET 10/100 Port: RJ-45 connector provides TCP/IP communication. This is an Auto MDI/MDI-X enabled port, which allows you to use either straight-through or crossover Ethernet cables. The Ethernet Port LEDs show communication activity, connection status, speeds, and mode information:
- SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps.
- L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
- AxLink Port: 1 3.5 mm captive-wire connector provides data and power to external control devices. The AxLink LED (green) indicates the state of the AxLink port.

POWER CONNECTOR IEC POWER CORD CONNECTOR:

- 100-240V AC
- 47-63Hz

ENVIRONMENTAL

- Operating Temperature: 0° C to 40° C (32° F to 104° F)
- Operating Humidity: 5% to 85% RH
- Storage Temperature: -10° C to 70° C (14° F to 158° F)

SUPPORTED VIDEO RESOLUTIONS

Up to 1920 x 1200 @ 60Hz. See Operations Reference Guide for details

CERTIFICATIONS

- RoHS
- FCC Class A
- CE

INCLUDED ACCESSORIES

- 2 CC-NIRC, IR Emitter w/3.5mm Phoenix (FG10-000-11)
- 2 Front Rack Mounting Brackets (62-1905-15)
- Enova DVX-3150HD-SP All-In-One Presentation Switcher Installation Guide (93-1950-15)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
CC-DVI-5BNCM	DVI to 5 BNC Male Cable	(FG10-2170-08)	56
CC-DVI-RCA3M	DVI to 3 RCA Male Cable	(FG10-2170-09)	56
CC-DVIM-VGAF	DVI to HD-15 Female Adapter	(FG10-2170-13)	57
CC-DVI-SVID	DVI to S-Video Cable	(FG10-2170-10)	57
CC-3.5ST5-RCA2F	5-pin 3.5mm Phoenix to 2 RCA Female Cable	(FG10-003-20)	56
AVB-RX-DXLINK-HDMI	DXLink HDMI HDCP RX with Scaler	(FG1010-500)	38

3 | 4 | 4 | 4
Serial • Relay • IR • Digital I/O

DVX-2100HD

All-In-One Presentation Switchers

2 DVI-I Outputs, 2x25 W Amp (FG1905-04)
2 DVI-I Outputs, 75W, 70V/100V Amp (FG1905-05)

OVERVIEW

The DVX-2100HD Enova All-In-One Presentation Switchers combines all of the components you need to control/automate any environment into a simple, flexible, comprehensive solution including control, multi-format inputs, video switching, transcoding and scaling, local and remote distribution, plus audio mixing, and amplification - all in a single box. The new and improved DVX features two independent DVI-I Digital and Analog video outputs enabling digital video to be delivered to two separate displays.

COMMON APPLICATION

The DVX-2100HD is an ideal presentation solution when used to simplify AV control and distribution in sophisticated presentation environments and conference rooms, including those supporting audio and video conferencing. It also fits well in classrooms and auditoriums that need multiple displays, or video previewing.

FEATURES

- **SmartScale™ Up to Higher Resolutions** – The DVX can automatically communicate with newly connected display devices to determine native resolutions and can up convert any input signals beyond HD resolutions up to 1920x1200.
- **Commands Signal Management Flexibility** – Over 200 input signal combinations of DVI , RGB, Component, S-Video, and Composite. Don't worry about having too many of one signal style or not enough of another – just grab an adapter cable and go. Digital never looked so good.
- **Simplifies Setup & Saves Time and Money** – The DVX-2100HD is a total environment solution that eliminates the need for separate devices, thus reducing connectivity time, integration time, hardware installation time, and that all reduces your overall cost.
- **Maximizes Video Productivity** – Built-in transcoding and scaling automatically optimizes the management of all your video input and output challenges.
- **Provides Quality Audio Processing** – Built-in audio mixing and amplification that outputs two channels at 25 Watts each into 8-ohms or 75 Watts at 70V or 100V after passing through a mixer and an integrated 2-band equalizer to accommodate the size, furnishings, surfaces and functionality requirements in every room. There's also a stereo line level output with its own mixing and equalization settings.
- **Superior Integrated Control** – Includes the same quality and reliability you have come to demand with the equivalent of a NetLinx NI-2100 central controller. The DVX also includes a front control panel for an added level of convenience. The DVX comes complete with our standard RS-232, IR, digital I/O and relay control ports for control over environment and third-party equipment.
- **Simplifies Wiring and Installation** – Integrating all of this into a single box has obvious advantages over the connectivity challenges associated with wiring up as many as a dozen separate devices, not including source devices.
- **Offers Remote Connectivity via Twisted Pair** – Connect up to two remote AV sources over twisted pair cable up to 50 meters (150 feet) away using UDM transport technology also found in AMX Endeleo products. And take advantage of the HydraPort retractable cable connection port plus the UPX universal transmitter wallplates to get the job done with class.

BULLSEYE TARGET PRODUCT
This is a Target Product as defined in the U.S. BullsEye Partnership Program. Participating AMX Dealers can be rewarded for purchasing Target Products as a % of their total annual net revenue.

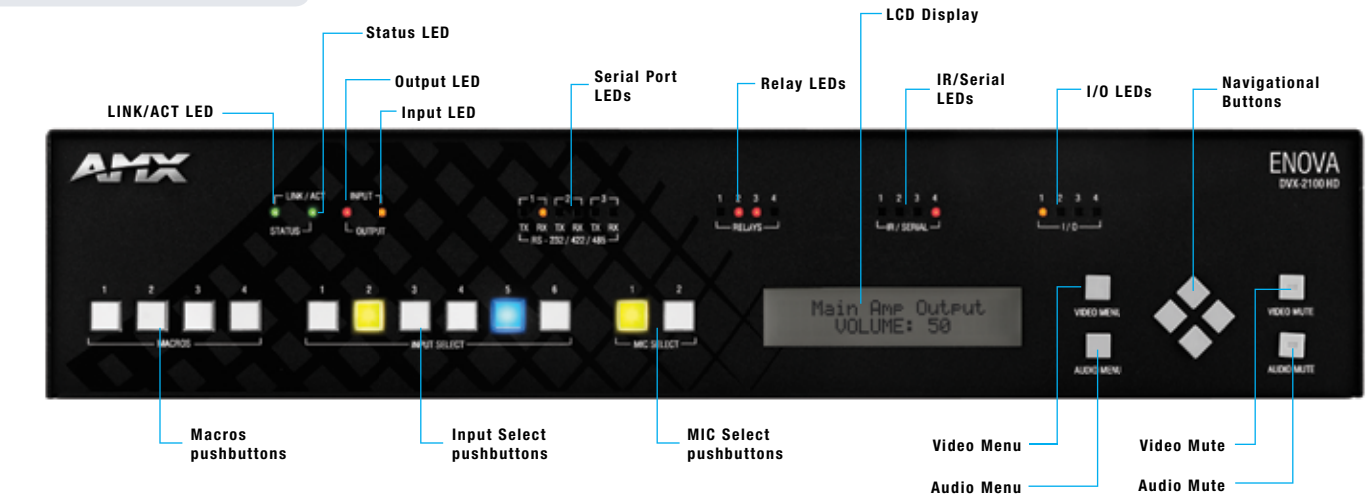
SmartScale® Technology
Enjoy crystal clear perfect resolution on every display using AMX's exclusive SmartScale Technology which automatically outputs video that is perfectly scaled to each connected display.

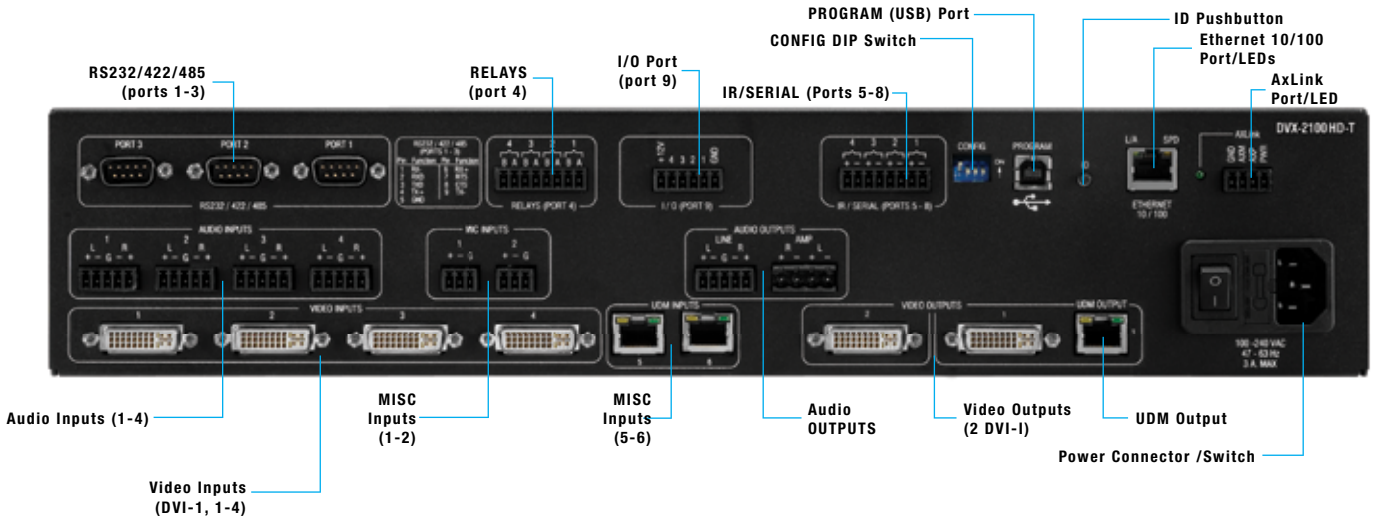
TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

SPOTLIGHT: ENOVA
A new, innovative philosophy on how you think about AV technology: Enova is part of an evolution to collaborate, communicate and educate using AV technology. Visit www.amx.com/enova/ to learn more.

A CLOSER LOOK





SPECIFICATIONS

DIMENSIONS (HWD)

3 1/2" x 17" x 14 1/4" (8.9 cm x 43.2 cm x 36.2 cm)

WEIGHT:

14.7 lb (6.67 kg)

POWER

110-240V, 47/63 Hz, 3A maximum AC supply

MEMORY

- 64 MB SDRAM
- 1 MB Non-volatile (NV) SRAM

FLASH

256 MB

AMPLIFIER

- DVX-2100HD-SP: 2 x 25W into 8 Ohms Class D stereo amplifier
- DVX-2100HD-T: 75W, 70V/100V mono amplifier

ENCLOSURE

Metal with black matte finish

INTEGRATED CONTROLLER

Equivalent of a NetLinx 2100 central controller on-board

FRONT PANEL COMPONENTS

- LINK/ACT (green): Link/Activity LED blinks when receiving Ethernet data packets.
- STATUS (green): Status LED blinks to indicate that the system is programmed and communicating properly.
- INPUT (yellow): Input LED blinks to indicate that the Controller is receiving data.
- OUTPUT (red): Output LED blinks to indicate that the Controller is transmitting data.
- RS-232 / 422 / 485 (red/yellow): 3 sets of LEDs indicate that RS-232/422/485 Ports (1-3) are transmitting or receiving data.
- RELAYS (red): 4 LEDs indicate that one or more of the relay channels (1-4) are active (closed).
- IR/SERIAL (red): 4 LEDs indicate that one or more of the IR/Serial channels (1-4) are transmitting control data.
- I/O (yellow): 4 LEDs indicate that one or more of the I/O channels (1-4) are active.
- MACROS pushbuttons: 4 back-lit pushbuttons allow access to macro functions. Macro functions are programmed via NetLinx code.
- INPUT SELECT pushbuttons: 6 back-lit (multi-color) source selection pushbuttons select an Input (source). Pressing an INPUT SELECT button after pressing the VIDEO MENU button activates only the video for the source input. Similarly, pressing the AUDIO MENU button followed by an INPUT SELECT button activates only the audio on the source input.
- MIC SELECT pushbuttons: 2 back-lit (yellow) buttons for selecting a microphone. Each button lights to indicate that a microphone is selected.
- LCD display: Liquid crystal display (2 lines with 20 characters per line) indicates current volume level and displays the Video, Audio, and Tools menus.
- VIDEO MENU pushbutton: Press to access the Video menu on the LCD display.
- AUDIO MENU pushbutton: Press to access the Audio menu on the LCD display.
- Navigational pushbuttons: 4 directional buttons for navigating the options in the Video and Audio menu (on the LCD display).
- VIDEO MUTE pushbutton: Press to mute/un-mute (enable/disable) all video output displays. Video Mute results in a blank screen on the output display.
- AUDIO MUTE pushbutton: Press to mute/un-mute all audio outputs.

REAR PANEL COMPONENTS

- RS-232/422/485 (Ports 1-3) provide serial control via DB9 (male) connectors:
  - XON/XOFF (transmit on/transmit off)
  - CTS/RTS (clear to send/ready to send)
  - 300-115,200 baud
- RELAYS (Port 4) provides relay control via 8-pin 3.5 mm captive-wire connector:
  - 4-channel single-pole single-throw relay ports
  - Each relay is independently controlled
  - Supports up to 4 independent external relay devices
  - Channel range = 1-4
  - Each relay can switch up to 24 VDC or 28 VAC @ 1 A
  - One 8-pin 3.5 mm mini-Phoenix (female) connectors provide relay termination
- IR/SERIAL (Ports 5-8) provide IR/Serial control via 2-pin 3.5 mm captive-wire connectors:
  - Supports high-frequency carriers of up to 1.142 MHz
  - 4 IR/Serial data signals can be generated simultaneously
- I/O (Port 9) provides 4-channel binary I/O port for contact closure with each input being capable of voltage sensing.
- AUDIO INPUTS 4 3.5mm 5-pin captive-wire connectors receive up to four balanced/unbalanced line level audio inputs:
  - Nominal input level: +4 dBu (1.228 Vrms) balanced or -10 dBV (0.3162 Vrms) unbalanced
  - Maximum input level: 2 Vrms
  - Input impedance: >12k ohms unbalanced, >12k ohms balanced, DC coupled
- MIC INPUTS: 2 3.5mm 3-pin captive-wire connectors receive up to 2 mono microphones (balanced or unbalanced audio and switchable Phantom Power).
- AUDIO OUTPUTS:
  - LINE: 1 3.5mm 5-pin captive-wire connector provides for fixed or variable, balanced or unbalanced, mono or stereo line level audio output
  - AMP: 2-position captive wire connector provides amplified audio output with volume control
- VIDEO INPUTS (1-4): 4 DVI-I input connectors provide multi-format video inputs for up to four video sources. Each VIDEO INPUT connector supports RGBHV, S-video, composite video, component video, and DVI input.
- UDM INPUTS (5-6): 2 RJ-45 inputs receive audio and video from up to two UDM Multi-Format Distribution Hubs or UPX wallplates. The DVX-2100HD-SP is compatible with all UDM Multi-Format Distribution Hubs.
- VIDEO OUTPUTS (FG1905-04/-05) 1&2
  - Two video output connectors provide two separate types of video output
    - 2 - DVI-I Output connectors provides digital and analog video output. You can view Digital and Analog output one at a time or at the same time by using a DVI splitter
    - 2 - 1 RJ-45 connector allows the DVX-2100HD-SP to connect to a UDM Multi-Format Receiver (Follows DVI-I Video Output #1)
- CONFIG DIP Switch: 4-position Master configuration DIP switch allows setting the onboard Master execution mode (PRD or normal).
- PROGRAM Port: USB connector that supports USB communications to a PC for system configuration and diagnostics
- ID Pushbutton: Black ID pushbutton sets the NetLinx Device ID assignments of the Internal Control Device. It has no effect on the Internal Switcher Device.k.

- ETHERNET 10/100 Port: RJ-45 connector provides TCP/IP communication. This is an Auto MDI/MDI-X enabled port, which allows you to use either straight-through or crossover Ethernet cables. The Ethernet Port LEDs show communication activity, connection status, speeds, and mode information:
  - SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps.
  - L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
- AxLink Port: 1 3.5 mm captive-wire connector provides data and power to external control devices. The AxLink LED (green) indicates the state of the AxLink port.

POWER CONNECTOR IEC POWER CORD CONNECTOR:

- 100-240V AC
- 47-63Hz
- 2.5A maximum

ENVIRONMENTAL

- Operating Temperature: 0° C to 40° C (32° F to 104° F)
- Operating Humidity: 5% to 85% RH
- Storage Temperature: -10° C to 70° C (14° F to 158° F)

SUPPORTED VIDEO RESOLUTIONS

HD resolutions up to 1080p and RGB resolutions up to 1920 x 1200 @ 60Hz

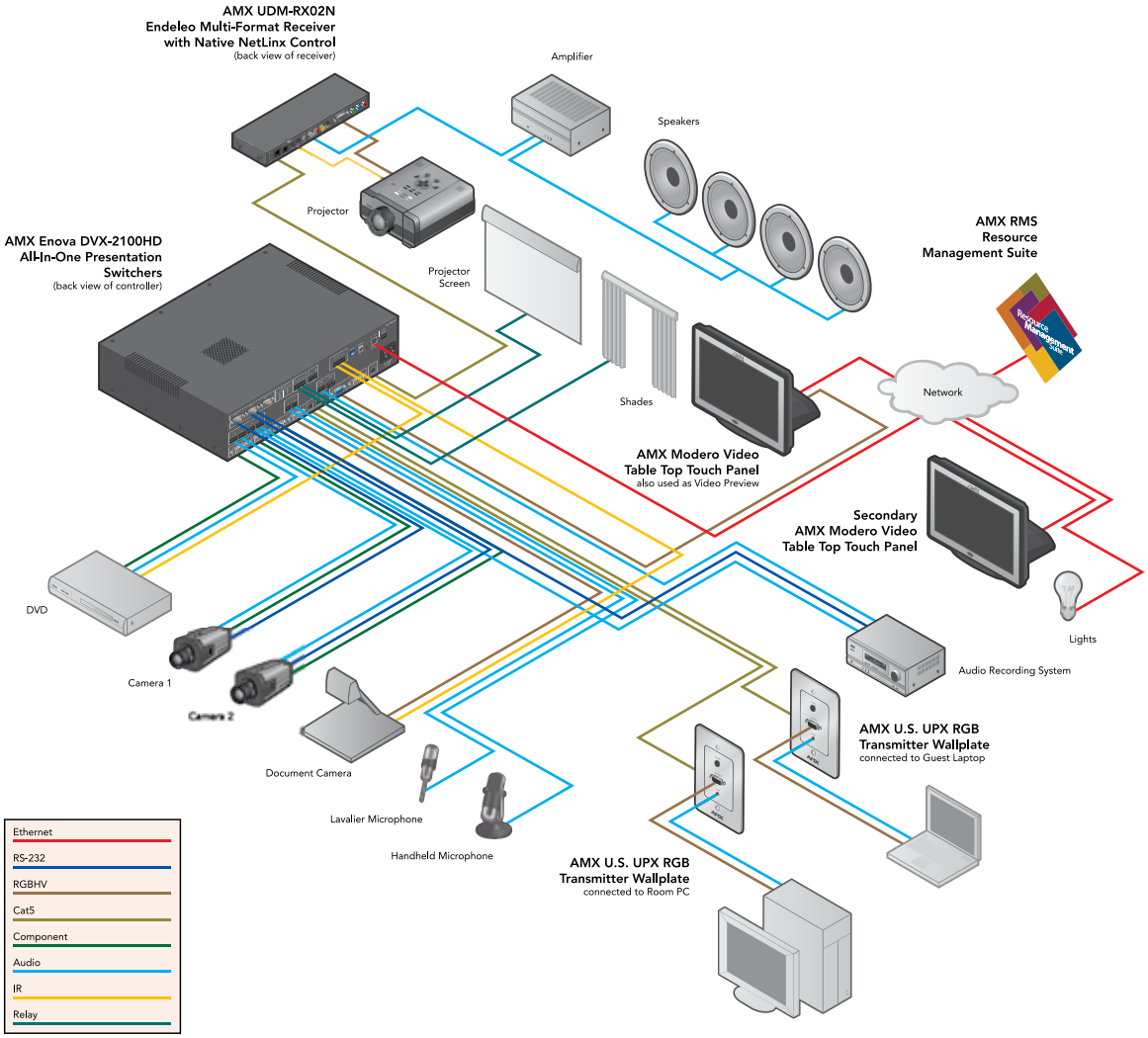
CERTIFICATIONS

- RoHS
- FCC Class B
- CE
- CB Scheme
- UL

INCLUDED ACCESSORIES

- 2 CC-NIRC, IR Emitter w/3.5mm Phoenix (FG10-000-11)
- 2 CC-DVIM-VGAF, DVI to VGA Adapter (FG10-2170-13)
- 2 Front Rack Mounting Brackets (62-1905-04)
- Enova DVX-2100HD-SP All-In-One Presentation Switcher Installation Guide (93-1950-01)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
CC-DVI-5BNCM	DVI to 5 BNC Male Cable	(FG10-2170-08)	56
CC-DVI-RCA3M	DVI to 3 RCA Male Cable	(FG10-2170-09)	56
CC-DVIM-VGAF	DVI to HD-15 Female Adapter	(FG10-2170-13)	57
CC-DVI-SVID	DVI to S-Video Cable	(FG10-2170-10)	57
CC-3.5ST5-RCA2F	5-pin 3.5mm Phoenix to 2 RCA Female Cable	(FG10-003-20)	56
UDM-RX02N	Multi-Format Receiver with Native NetLinx Control	(FG1402-20)	690
UPX-CS+A-US	Composite Universal Transmitter Wallplate (US)	(FG1402-50-SW/SB/SA)	71
UPX-CS+A-DE	Composite Universal Transmitter Decor Style Wallplate (US)	(FG1402-50-DW/DB)	72
UPX-CS+A-UK	Composite Universal Transmitter Wallplate (UK)	(FG1402-50-KW/KB/KA)	73
UPX-CS+A-EU	Composite Universal Transmitter Wallplate (EU)	(FG1402-50-EW/EB/EA)	74
UPX-RGB+A-US	RGB Universal Transmitter Wallplate (US)	(FG1402-51-SW/SB/SA)	75
UPX-RGB+A-DE	RGB Universal Transmitter Decor Style Wallplate (US)	(FG1402-51-DW/DB)	76
UPX-RGB+A-UK	RGB Universal Transmitter Wallplate (UK)	(FG1402-51-KW/KB/KA)	77
UPX-RGB+A-EU	RGB Universal Transmitter Wallplate (EU)	(FG1402-51-EW/EB/EA)	78
UPX-CN+A-US	Component Universal Transmitter Wallplate (US)	(FG1402-52-SW/SB/SA)	79
UPX-CN+A-DE	Component Universal Transmitter Decor Style Wallplate (US)	(FG1402-52-DW/DB)	80
UPX-CN+A-UK	Component Universal Transmitter Wallplate (UK)	(FG1402-52-KW/KB/KA)	81
UPX-CN+A-EU	Component Universal Transmitter Wallplate (EU)	(FG1402-52-EW/EB/EA)	82
UPX-HDMI+A-US	HDMI Pass Through Universal Transmitter Wallplate (US)	(FG1402-53-SW/SB/SA)	69
UPX-HDMI+A-DE	HDMI Pass Through Universal Transmitter Decor Style Wallplate (US)	(FG1402-53-DW/DB)	70
HPX-C5400-CS+A	Composite with Stereo to Cat5 Module	(FG552-50-BL-K)	99
HPX-C5400-VGA+A	RGBHV with Stereo to Cat5 Module	(FG552-51-BL-K)	99
HPX-C5400-CN+A	Component with Stereo to Cat5 Module	(FG552-52-BL-K)	98



NXB-KNX

KNX Communications Gateway

(FG2031-01)

OVERVIEW

Now Enables AMX Control Of KNX Devices

The NetLinx NXB-KNX Communications Gateway allows NetLinx Integrated Controllers the ability to seamlessly control, integrate and communicate with homes and buildings that utilize the KNX communication protocol. KNX is the world's first open, royalty free, and platform independent standard for home and commercial building control.

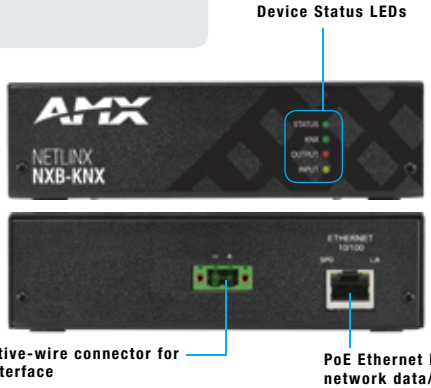
COMMON APPLICATION

Ideal for building control, ranging from lighting and shade control to various security systems, HVAC, water control, energy management, metering as well as audio and more.

FEATURES

- Index filtering tables for portability between systems
- Zero configuration support for immediate system recognition
- Two-Way Control
- Extend data-point type allows time, date, etc. to be captured and used in RMS
- 64 MB RAM / 256 MB FLASH
- Ethernet Interface to AMX control equipment

A CLOSER LOOK



SPECIFICATIONS

DIMENSIONS (HWD)

- With feet: 1 5/8" x 5 1/2" x 4 1/8" (4.2 cm x 14.1 cm x 10.4 cm)
- Without feet: 1 1/2" x 5 1/2" x 4 1/8" (3.9 cm x 14.1 cm x 10.4 cm)
- RU: 1

WEIGHT

1.45 lbs (0.65 kg)

FRONT PANEL COMPONENTS

- Status LED (green): Blinks once a second to indicate that the unit has powered up. Any state other than blinking once a second indicates the unit is either not powered, or has not completed boot up
- KNX LED (green): Solid on indicates power is on and the unit is connected to KNX bus
- Output LED (red): Lights to indicate traffic from the NXB-KNX to the KNX bus
- Input LED (yellow): Lights to indicate traffic from the KNX bus to the NXB-KNX

REAR PANEL CONNECTORS

- KNX 2-pin captive-wire connector
- Ethernet Port - 10/100 Ethernet with PoE. LEDs show communication activity, connection status, speeds, and mode information:
  - SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps
  - L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets

POWER

- PoE powered - no local Power Supply needed
- IEEE 802.3af Compliant

MEMORY

- 64 MB of RAM
- 256 MB of FLASH

ENVIRONMENTAL

- Operating Temperature: 32°F to 104°F (0°C to 40°C)
- Relative Humidity: 5% to 85% non-condensing
- Intended for indoor use only

CERTIFICATIONS

FCC Class B, CE, IEC60950, RoHS

INCLUDED ACCESSORIES

- Rubber feet
- Green 2-Pin 5mm Phoenix connector with captive screws

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PS-POE-AF	PoE Injector	(FG423-80)	360

EXB-IRS4

ICSLan IR/S Interface, 4 IR/S and 4 Inputs

(FG2100-23)

OVERVIEW

ICSLan Device Control Boxes allow users to manage devices remotely from a Controller over an Ethernet network. This provides a beautifully simple method for a centralized control environment allowing users to share a controller among multiple smaller rooms versus controllers in every room. Ethernet has become the industry standard for connecting devices and the ICSLan Device Control Boxes make it easy to introduce control to equipment such as projectors located extended distances from a Controller. Additionally, the number of ports on an AMX Controller can be expanded when all ports are fully populated. Because they employ Native NetLinx technology, it is extremely simple to add an EXB to an AMX installation.

COMMON APPLICATION

Conference rooms, classroom or auditoriums where a single controller is used to manage multiple devices such as projectors spread throughout a facility or to add additional ports to an AMX Central Controller.

FEATURES

- **Enable Ports over Ethernet** – Provides a future proof solution to add ports anywhere
- **Easy to Program** – Programming is identical to any other device ports on the Controller
- **Power over Ethernet** – Eliminate the need for a power source at the install location
- **Small Form Factor** – Compact design makes it easy to hide for a clean installation
- **NetLinx Studio Tools** – Configuration tools make ICSLan Device Control Boxes easy to deploy

DEALER BENEFITS

- **Standard, Ethernet-Based Interface** – Familiar installation methodology using standard switches rather than proprietary distribution hardware
- **Easy to Program** – Programming is identical to any other device port on the Controller
- **Easy to Install** – Compact size, Power over Ethernet and compatible with any AMX Central Controller

CUSTOMER BENEFITS

- **Control Any Device** – Provides the ability to control devices that may be far from a controller
- **Cost Effective Solution for Smaller Rooms** – Leverage the power of a single central controller across multiple rooms
- **Out of Sight** – Compact design makes it easy to hide for a clean, elegant look

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

SPECIFICATIONS

DIMENSIONS (HWD)

- 1” x 4 3/8” x 5 1/8” (2.5 cm cm x 11.1 cm x 13.00 cm)
- RU: 1

WEIGHT

1 lb (454 g)

POWER

- PoE Powered - No local Power Supply needed
- Typical power draw: 1.9 Watts
- Max power draw: 2.4 Watts

OPERATION

- Four IR / Serial control ports, 20KHz - 1.14MHz
- Four input ports for sensing contact closure

STATUS LEDS

- 1 Green LED shows connection and power status
- 1 Green LED shows Ethernet Link status and activity
- 4 Red LEDs (1 per IR port) show IR transmit (TX) data activity
- 4 Yellow LEDs (1 per input port) show input activity

CONNECTIONS / WIRING

- 1 RJ-45 ICS-LAN Ethernet Connector
- 1 8-Pin 3.5mm captive-screw terminal for I/R ports
- 1 6-Pin 3.5mm captive-screw terminal for inputs

RECOMMENDED ACCESSORIES

DESCRIPTION	PART #	PAGE #
CC-NIRC	(CC-NIRC)	364
Gigabit Ethernet Switch	(FG2178-62)	386
PoE Injector	(FG423-80)	360
V-Style Module Surface Mount	(FG1010-722)	707
V-Style Module Tray / Tray with fill plates	(FG1010-720/721)	707
V Style Module Pole Mount	(FG1010-723)	708

EXB-COM2

ICSLan Serial Interface, 2 Ports

(FG2100-22)

OVERVIEW

ICSLan Device Control Boxes allow users to manage devices remotely from a Controller over an Ethernet network. This provides a beautifully simple method for a centralized control environment allowing users to share a controller among multiple smaller rooms versus controllers in every room. Ethernet has become the industry standard for connecting devices and the ICSLan Device Control Boxes make it easy to introduce control to equipment such as projectors located extended distances from a Controller. Additionally, the number of ports on an AMX Controller can be expanded when all ports are fully populated. Because they employ Native NetLinx technology, it is extremely simple to add an EXB to an AMX installation.

COMMON APPLICATION

Conference rooms, classroom or auditoriums where a single controller is used to manage multiple devices such as projectors spread throughout a facility or to add additional ports to an AMX Central Controller.

FEATURES

- **Enable Ports over Ethernet** – Provides a future proof solution to add ports anywhere
- **Easy to Program** – Programming is identical to any other device ports on the Controller
- **Power over Ethernet** – Eliminate the need for a power source at the install location
- **Small Form Factor** – Compact design makes it easy to hide for a clean installation
- **NetLinx Studio Tools** – Configuration tools make ICSLan Device Control Boxes easy to deploy

DEALER BENEFITS

- **Standard, Ethernet-Based Interface** – Familiar installation methodology using standard switches rather than proprietary distribution hardware
- **Easy to Program** – Programming is identical to any other device port on the Controller
- **Easy to Install** – Compact size, Power over Ethernet and compatible with any AMX Central Controller

CUSTOMER BENEFITS

- **Control Any Device** – Provides the ability to control devices that may be far from a controller
- **Cost Effective Solution for Smaller Rooms** – Leverage the power of a single central controller across multiple rooms
- **Out of Sight** – Compact design makes it easy to hide for a clean, elegant look

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

SPECIFICATIONS

DIMENSIONS (HWD)

- 1” x 4 3/8” x 5 1/8” (2.5 cm cm x 11.1 cm x 13.00 cm)
- RU: 1

WEIGHT

1 lb (454 g)

POWER

- PoE Powered - No local Power Supply needed
- Power draw: 1.9 Watts

OPERATION

- One RS-232/422/485 control port, supports XON/XOFF, CTS/RTS, 300 - 115.2K Baud
- One RS-232 control port, supports CTS/RTS, 300 - 115.2K Baud

STATUS LEDS

- 1 Green LED shows connection and power status
- 1 Green LED shows Ethernet Link status and activity
- 2 Red LEDs (1 per COM port) show serial transmit (TX) data activity
- 2 Yellow LEDs (1 per COM port) show serial receive (RX) data activity

CONNECTIONS / WIRING

- 1 RJ-45 ICS-LAN Ethernet Connector
- 1 10-Pin 3.5mm captive-screw terminal (RS-232/422/485 port)
- 1 5-Pin 3.5mm captive-screw terminal (RS-232 port)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXA-ENET8POE	Gigabit Ethernet Switch	(FG2178-62)	386
PS-POE-AF	PoE Injector	(FG423-80)	360
AVB-VSTYLE-SURFACE-MNT	V-Style Module Surface Mount	(FG1010-722)	707
AVB-VSTYLE-RMK	V-Style Module Tray / Tray with fill plates	(FG1010-720/721)	707
AVB-VSTYLE-POLE-MNT	V Style Module Pole Mount	(FG1010-723)	708

EXB-REL8

ICSLan Relay Interface, 8 Channels

(FG2100-20)

OVERVIEW

ICSLan Device Control Boxes allow users to manage devices remotely from a Controller over an Ethernet network. This provides a beautifully simple method for a centralized control environment allowing users to share a controller among multiple smaller rooms versus controllers in every room. Ethernet has become the industry standard for connecting devices and the ICSLan Device Control Boxes make it easy to introduce control to equipment such as projectors located extended distances from a Controller. Additionally, the number of ports on an AMX Controller can be expanded when all ports are fully populated. Because they employ Native NetLinx technology, it is extremely simple to add an EXB to an AMX installation.

COMMON APPLICATION

Conference rooms, classroom or auditoriums where a single controller is used to manage multiple devices such as projectors spread throughout a facility or to add additional ports to an AMX Central Controller.

FEATURES

- **Enable Ports over Ethernet** – Provides a future proof solution to add ports anywhere
- **Easy to Program** – Programming is identical to any other device ports on the Controller
- **Power over Ethernet** – Eliminate the need for a power source at the install location
- **Small Form Factor** – Compact design makes it easy to hide for a clean installation
- **NetLinx Studio Tools** – Configuration tools make ICSLan Device Control Boxes easy to deploy

DEALER BENEFITS

- **Standard, Ethernet-Based Interface** – Familiar installation methodology using standard switches rather than proprietary distribution hardware
- **Easy to Program** – Programming is identical to any other device port on the Controller
- **Easy to Install** – Compact size, Power over Ethernet and compatible with any AMX Central Controller

CUSTOMER BENEFITS

- **Control Any Device** – Provides the ability to control devices that may be far from a controller
- **Cost Effective Solution for Smaller Rooms** – Leverage the power of a single central controller across multiple rooms
- **Out of Sight** – Compact design makes it easy to hide for a clean, elegant look

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

SPECIFICATIONS

DIMENSIONS (HWD)

- 1” x 4 3/8” x 5 1/8” (2.5 cm cm x 11.1 cm x 13.00 cm)
- RU: 1

WEIGHT

1.02 lb (463 g)

POWER

- PoE Powered - No local Power Supply needed
- Typical power draw: 1.9 Watts
- Max power draw: 3.4 Watts

OPERATION

Eight relays, 1A @ 24VAC / 28VDC

STATUS LEDS

- 1 Green LED shows connection and power status
- 1 Green LED shows Ethernet Link status and activity
- 8 Red LEDs (1 per relay) show relay activity

CONNECTIONS / WIRING

- 1 RJ-45 ICS-LAN Ethernet Connector
- 2 8-Pin 3.5mm captive-screw terminals

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXA-ENET8POE	Gigabit Ethernet Switch	(FG2178-62)	386
PS-POE-AF	PoE Injector	(FG423-80)	360
AVB-VSTYLE-SURFACE-MNT	V-Style Module Surface Mount	(FG1010-722)	707
AVB-VSTYLE-RMK	V-Style Module Tray / Tray with fill plates	(FG1010-720/721)	707
AVB-VSTYLE-POLE-MNT	V Style Module Pole Mount	(FG1010-723)	708

EXB-I/O8

ICSLan Input/Output Interface, 8 Channels

(FG2100-21)

OVERVIEW

ICSLan Device Control Boxes allow users to manage devices remotely from a Controller over an Ethernet network. This provides a beautifully simple method for a centralized control environment allowing users to share a controller among multiple smaller rooms versus controllers in every room. Ethernet has become the industry standard for connecting devices and the ICSLan Device Control Boxes make it easy to introduce control to equipment such as projectors located extended distances from a Controller. Additionally, the number of ports on an AMX Controller can be expanded when all ports are fully populated. Because they employ Native NetLinx technology, it is extremely simple to add an EXB to an AMX installation.

COMMON APPLICATION

Conference rooms, classroom or auditoriums where a single controller is used to manage multiple devices such as projectors spread throughout a facility or to add additional ports to an AMX Central Controller.

FEATURES

- **Enable Ports over Ethernet** – Provides a future proof solution to add ports anywhere
- **Easy to Program** – Programming is identical to any other device ports on the Controller
- **Power over Ethernet** – Eliminate the need for a power source at the install location
- **Small Form Factor** – Compact design makes it easy to hide for a clean installation
- **NetLinx Studio Tools** – Configuration tools make ICSLan Device Control Boxes easy to deploy

DEALER BENEFITS

- **Standard, Ethernet-Based Interface** – Familiar installation methodology using standard switches rather than proprietary distribution hardware
- **Easy to Program** – Programming is identical to any other device port on the Controller
- **Easy to Install** – Compact size, Power over Ethernet and compatible with any AMX Central Controller

CUSTOMER BENEFITS

- **Control Any Device** – Provides the ability to control devices that may be far from a controller
- **Cost Effective Solution for Smaller Rooms** – Leverage the power of a single central controller across multiple rooms
- **Out of Sight** – Compact design makes it easy to hide for a clean, elegant look

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

SPECIFICATIONS

DIMENSIONS (HWD)

- 1” x 4 3/8” x 5 1/8” (2.5 cm cm x 11.1 cm x 13.00 cm)
- RU: 1

WEIGHT

1 lb (454 g)

POWER

- PoE Powered - No local Power Supply needed
- Power draw: 1.9 Watts

OPERATION

Eight Input/Output channels

STATUS LEDS

- 1 Green LED shows connection and power status
- 1 Green LED shows Ethernet Link status and activity
- 8 Yellow LEDs (1 per I/O) show Input/Output activity

CONNECTIONS / WIRING

- 1 RJ-45 ICS-LAN Ethernet Connector
- 1 10-Pin 3.5mm captive-screw terminal (RS-232/422/485 port)

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXA-ENET8POE	Gigabit Ethernet Switch	(FG2178-62)	386
PS-POE-AF	PoE Injector	(FG423-80)	360
AVB-VSTYLE-SURFACE-MNT	V-Style Module Surface Mount	(FG1010-722)	707
AVB-VSTYLE-RMK	V-Style Module Tray / Tray with fill plates	(FG1010-720/721)	707
AVB-VSTYLE-POLE-MNT	V Style Module Pole Mount	(FG1010-723)	708

EXB-MP1

ICSLan Multi-Port, 1 COM, 1 IR/S, 2 I/O, 1 IR RX

(FG2100-26)

OVERVIEW

ICSLan Device Control Boxes allow users to manage devices remotely from a Controller over an Ethernet network. This provides a beautifully simple method for a centralized control environment allowing users to share a controller among multiple smaller rooms versus controllers in every room. Ethernet has become the industry standard for connecting devices and the ICSLan Device Control Boxes make it easy to introduce control to equipment such as projectors located extended distances from a Controller. Additionally, the number of ports on an AMX Controller can be expanded when all ports are fully populated. Because they employ Native NetLinx technology, it is extremely simple to add an EXB to an AMX installation.

COMMON APPLICATION

Conference rooms, classroom or auditoriums where a single controller is used to manage multiple devices such as projectors spread throughout a facility or to add additional ports to an AMX Central Controller.

FEATURES

- **Enable Ports over Ethernet** – Provides a future proof solution to add ports anywhere
- **Easy to Program** – Programming is identical to any other device ports on the Controller
- **Power over Ethernet** – Eliminate the need for a power source at the install location
- **Small Form Factor** – Compact design makes it easy to hide for a clean installation
- **NetLinx Studio Tools** – Configuration tools make ICSLan Device Control Boxes easy to deploy

DEALER BENEFITS

- **Standard, Ethernet-Based Interface** – Familiar installation methodology using standard switches rather than proprietary distribution hardware
- **Easy to Program** – Programming is identical to any other device port on the Controller
- **Easy to Install** – Compact size, Power over Ethernet and compatible with any AMX Central Controller

CUSTOMER BENEFITS

- **Control Any Device** – Provides the ability to control devices that may be far from a controller
- **Cost Effective Solution for Smaller Rooms** – Leverage the power of a single central controller across multiple rooms
- **Out of Sight** – Compact design makes it easy to hide for a clean, elegant look

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

SPECIFICATIONS

DIMENSIONS (HWD)

- 1” x 3” x 4 13/16” (2.5 cm cm x 7.6 cm cm x 12.2 cm)
- RU: 1

POWER

- PoE Powered - No local Power Supply needed
- Power draw: 1.9 Watts

OPERATION

- One RS-232 control port, supports CTS/RTS, 300 - 115.2K Baud
- Two Input/Output channels
- One IR / Serial control port, 20KHz - 1.14MHz
- One IR Receiver port

STATUS LEDS

- 1 Green LED shows connection and power status
- 1 Green LED shows Ethernet Link status and activity
- 1 Red LED shows serial transmit (TX) data activity
- 1 Yellow LED shows serial receive (RX) data activity
- 2 Yellow LEDs (1 per I/O) show Input/Output activity
- 4 Red LEDs (1 per IR port) show IR transmit (TX) data activity
- 4 Yellow LEDs (1 per I/O port) show I/O input activity

CONNECTIONS / WIRING

1 RJ-45 ICS-LAN Ethernet Connector

RECOMMENDED ACCESSORIES

DESCRIPTION	PART #	PAGE #
NetLinx IR Emitter Cable	(FG10-000-11)	364
External IR Receiver Module	(FG-IR03)	695
Gigabit Ethernet Switch	(FG2178-62)	386
PoE Injector	(FG423-80)	360
V-Style Module Surface Mount	(FG1010-722)	707
V Style Module Pole Mount	(FG1010-723)	708

NXC-NH

NetLinx ICSNet Hub Card

(FG2060)

OVERVIEW

Designed for control systems of virtually any size, the NXC-NH NetLinx ICSNet Hub can expand control over long distances. The NXC-NH ICSNet Hub is engineered to distribute ICSP (Internet Control System Protocol) data and NetLinx ICSNet control to the entire NetLinx Control System. ICSP Packets are transmitted over various types of networks that include Internet, Ethernet and NetLinx ICSNet control bus managed by the cards. Operating as a dedicated control network, the ICSNet uses Echlon™ Neuron© technology to transmit high-speed data.

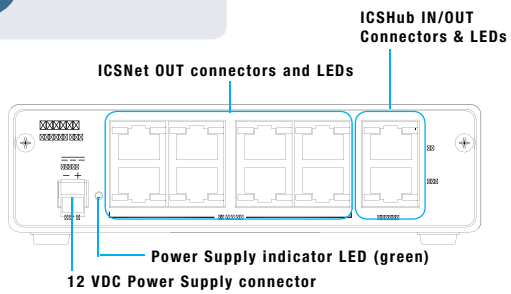
FEATURES

- Distributes ICSNet data and power to other NetLinx devices
- Manages up to 8 independent ICSNet wiring runs
- Handles wiring runs of up to 1,000 feet for each ICSNet run
- Links to NetLinx Master and Hubs via ICSHub networking
- Accepts ICSHub data, regenerates new ICSHub data link for up to 1,000 feet
- Employs industry-standard CAT-5 wiring and connections
- Available to install in NXF NetLinx CardFrame, NXI or in NXS-MHS Module enclosure

D-TOOLS CERTIFIED PRODUCT

This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

A CLOSER LOOK



SPECIFICATIONS

DIMENSIONS (HWD)

- 1 5/16" x 5" x 8 13/16" (3.4 cm x 12.7 cm x 22.4 cm)
- RU: 1

WEIGHT

26 oz (737 g)

POWER

180 mA @ 12 VDC

REAR PANEL COMPONENTS

- POWER: 2-pin 12 VDC power terminal
- ICSNet: Eight RJ-45 jacks for ICSNet data and power; green LED flashes when receiving data
- ICSHub: In and Out RJ-45 jacks for ICSHub data and power; yellow LED flashes when receiving data

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
PSN6.5	6.5 Amp Power Supply	(FG423-41)	359
PSN4.4	4.4 Amp Power Supply	(FG423-45)	358
PSN2.8	13.5 VDC, 2.8 A Power Supply	(FG423-17)	357

NXS-MHS

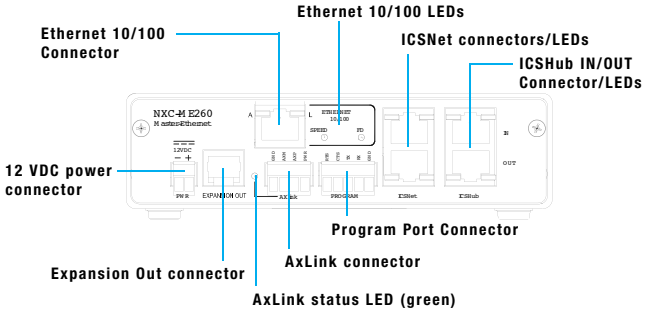
Master/Hub Module Shell

(FG2009)

OVERVIEW

The NXS-MHS Master/Hub Module Shell is the enclosure for the NetLinx Processor ICSNet and ICSHub Cards. The NXS-MHS accommodates one card and comes complete with faceplates for the Master and the Hub.

A CLOSER LOOK



SPECIFICATIONS

DIMENSIONS (HWD)
- 1 1/2" x 5 9/16" x 8 3/4" (3.8 cm x 14.1 cm x 22.2 cm)
- RU: 1

WEIGHT
1.4 lbs (630 g)

ENCLOSURE
Metal with black matte finish

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXC-NH	ICSNet Hub Card	(FG2060)	321

NXS-NMS

NetModule Shell

(FG2009-10)

OVERVIEW

With the NXS-NMS NetModule Shell, one NetLinx Control Card can be installed, providing connectivity to the NetLinx bus via ICSNet connections. The NXS-NMS is a simple, economical option for integrating additional functionality into control systems, and it provides an enclosure for installing NetLinx (NXC) Control Cards.

FEATURES

- Control connector: 20-pin black (male) connector that connects the NetModule Shell to external devices. These connectors are keyed to ensure proper installation
- ICSNet RJ-45 connectors: Receives power and data from a NetLinx Master/Hub ICSNet Port. An ICSNet port on a NetLinx Master or Hub supplies up to 500 mA at 12 V for module power
- 12 VDC power supply connectors: Two male 2-pin (green) connectors for 12 VDC power

SPECIFICATIONS

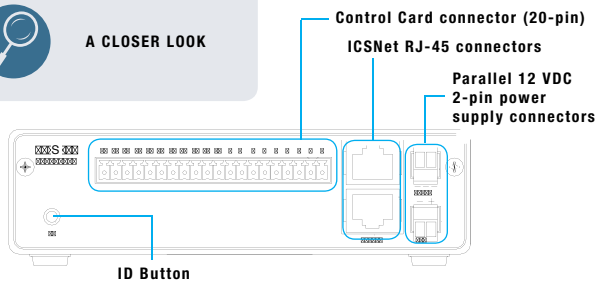
DIMENSIONS (HWD)
- 1 1/2" x 5 9/16" x 9 1/4" (3.8 cm x 14.1 cm x 23.5 cm)
- RU: 1

WEIGHT
2.15 lbs (980 g)

POWER
+12 VDC

QUICK TIP
The ID button on the rear panel can be programmed with the NetLinx Studio software to assign new Device and System numbers for the module.

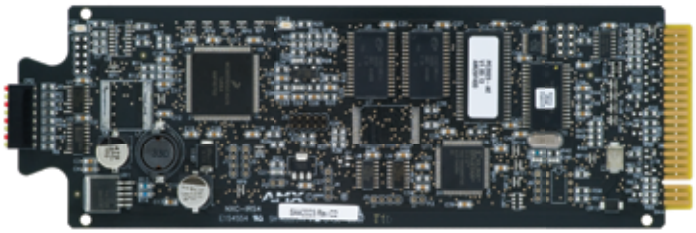
A CLOSER LOOK



NXC-IRS4

4-Port IR/S Card, 4 IR/S and 4 Inputs

(FG2023)



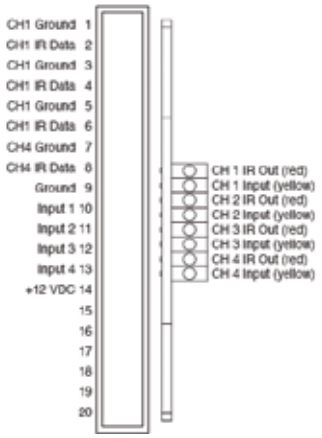
OVERVIEW

The NXC-IRS4 4-Port IR/S Card provides four IR/Serial input control ports with LED status feedback. Each port in the NXC-IRS4 stores programmed commands for IR or serial-controlled devices. The NXC-IRS4 Card can be used for stand-alone operation in the NXS-NMS NetModule Shell or in conjunction with up to 12 Control Cards in the NXF NetLinx CardFrame. NetLinx Control Cards provide flexible, modular building blocks for creating advanced control applications. With a full array of LED status indicators at the front, the LEDs are easily viewed from the NetLinx enclosure's translucent cover. Whether in a CardFrame or NetModule, NetLinx Control Cards operate directly on the high-speed ICSNet data bus.

FEATURES

- Provides four IR/IR Serial control ports and front-panel status feedback
- Includes four inputs for sensed power control
- Comes with 2CC-NIRC NetLinx IR Emitter Cables

A CLOSER LOOK



SPECIFICATIONS

IR 1-4

4 IR/IR Serial control ports 20 KHz-1.14 MHz

INPUT 1-4

4 I/O ports for closure or 0-5 VDC sensing, 200 mA

POWER

+12 VDC power for sensors

STATUS 1-10

2 LEDs for each channel, Red LED for IR transmission, Yellow LED for input status, Green ICSP status LED

WIRING

3.5mm captive-screw terminals

MODELS

NXC-IRS4 4-Port IR/S Card

HOUSING

- NXF NetLinx CardFrame
- NXS-NMS NetModule Shell

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXF	NetLinx CardFrame	(FG2001)	298
NXS-NMS	NetModule Shell	(FG2009-10)	322
CC-NIRC	NetLinx IR Emitter Cable	(FG10-000-11)	364

NXC-COM2

Dual COM Port Card, 2 RS-232/422/485

(FG2022)

OVERVIEW

The NXC-COM2 Dual COM Port Card provides two RS-232, RS-422, or RS-485 control ports and LED feedback for remote sources connected to the NXF NetLinx CardFrame, NI-4000 or NXS-NMS NetModule Shell. The NXC-COM2 can be used for stand-alone operation in the NXS-NMS NetModule Shell or in conjunction with up to 12 Control Cards in the NXF NetLinx CardFrame. NetLinx Control Cards provide flexible, modular building blocks for creating advanced control applications. With a full array of LED status indicators at the front, the LEDs are easily viewed from the NetLinx enclosure's translucent cover. Whether in a CardFrame or NetModule, NetLinx Control Cards operate directly on the high-speed ICSNet data bus.

FEATURES

Provides two RS-232/422/485 data control ports and front-panel feedback

SPECIFICATIONS

POWER

140 mA @ 12 VDC

OPERATION

Data 1-2: Two RS-232/422/485 control ports, supports XON/XOFF, CTS/RTS, 300-230,400 baud

STATUS LEDS (2 PER CHANNEL)

- Red LED shows TX (transmit) data activity
- Yellow LED shows RX (receive) data activity
  - LED 1: CH1 TX (red)
  - LED 2: CH1 RX (yellow)
  - LED 3: CH2 TX (red)
  - LED 4: CH2 RX (yellow)
- Green ICSP status LED (located on the board):
  - On = card is not in communication with the Master.
  - Blinks (1-second intervals) during normal operation.

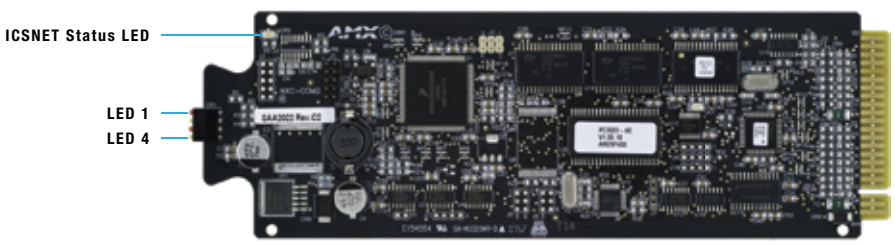
CONNECTIONS/WIRING

Two 10-pin 3.5 mm captive-screw terminals

DEVICE_ID

$0107

A CLOSER LOOK



RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXF	NetLinx CardFrame	(FG2001)	298
NXS-NMS	NetModule Shell	(FG2009-10)	322

NXC-VAI4

Voltage Output/Analog Input Card

(FG2025)

OVERVIEW

The NXC-VAI4 Analog Voltage Card is equipped with four independent analog-to-digital inputs and four independent digital-to-analog outputs, which are controllable over the ICSP network. Each port can be configured for a variety of DC input and output signals. NetLinx Control Cards provide flexible, modular building blocks for creating advanced control applications.

FEATURES

- Inputs: Four high-impedance analog DC inputs
- Outputs: Four analog DC outputs (user-configurable)
- D/A, A/D conversion: A/D and D/A converters for analog sampling and control 8- or 10-bit; user selectable
- Available input voltages: 0 V to +12 V
- Available output voltages: -12 V to +12 V
- The output voltage may be software-configured for any minimum and maximum levels between -12 and +12 VDC
- Maximum output current = 60 mA
- Over-voltage protection to +28 VDC

SPECIFICATIONS

POWER

330 mA @ 12 VDC

INPUTS

Four high-impedance analog DC inputs

OUTPUTS

Four analog DC outputs (user-configurable)

D/A - A/D CONVERSION

A/D and D/A converters for analog sampling and control. 8 or 10-bit; user-selectable via the ADMODE Send_Command

AVAILABLE INPUT VOLTAGES

0 V to +12 V

AVAILABLE OUTPUT VOLTAGES

- 12 V to +12 V: The output voltage may be software-configured for any min. and max. levels between -12 and +12 VDC.
  - Maximum output current = 60 mA
  - Over-voltage protection to +28 VDC
- External reference: A user supplied external reference voltage can be used to set the maximum voltage range for the D/A outputs. The full analog output range is scaled to fit the maximum range set by the external reference. Output voltage may be set to any level between 0-12 VDC, referenced to the external reference voltage input and NXC-VAI4 power supply GND
- External reference input: (EREF - one for each output)
  - Maximum external reference input voltage = +12 VDC
  - Over-voltage protection to +28 VDC
- Internal reference output: (IREF)
  - +5 V reference output, maximum current = 60 mA
  - This output is intended to drive a ground-referenced load

RECOMMENDED ACCESSORIES

DESCRIPTION	PART #	PAGE #
NetLinx CardFrame	(FG2001)	298
NetModule Shell	(FG2009-10)	322

NXC-VOL4

Volume Card, 4 Channels

(FG2024)

OVERVIEW

The NXC-VOL4 Volume Card offers four discrete volume control channels with LED feedback and is programmable for mono or stereo operation, and balanced or unbalanced audio connections. A variety of features can be programmed such as audio levels, audio mute, variable ramp speeds and preset levels. Use the on-board jumpers to set the gain/attenuation (Unity, Pro level (+4 dBu) to Consumer level (-10 dBu) conversion, or Consumer level to Pro level on each channel). NetLinx Control Cards provide flexible, modular building blocks for creating advanced control applications.

FEATURES

- Provides four line-level audio volume channels and front-panel feedback
- Supports balanced and unbalanced applications

SPECIFICATIONS

POWER

197 mA @ 12 VDC

VOLUME 1-4

Four volume channels

STATUS 1-4 (3 LEDS PER CHANNEL)

- Yellow LED shows level-up/down activity
- Red LED shows mute mode
  - LED 1: Channel 1 RAISE (yellow)
  - LED 2: Channel 1 LOWER (yellow)
  - LED 3: Channel 1 MUTE (red)
  - LED 4: Channel 2 RAISE (yellow)
  - LED 5: Channel 2 LOWER (yellow)
  - LED 6: Channel 2 MUTE (red)
  - LED 7: Channel 3 RAISE (yellow)
  - LED 8: Channel 3 LOWER (yellow)
  - LED 9: Channel 3 MUTE (red)
  - LED 10: Channel 4 RAISE (yellow)
  - LED 11: Channel 4 LOWER (yellow)
  - LED 12: Channel 4 MUTE (red)

GAIN JUMPERS 1-4

- Unity: Maximum Input Level: +10dBm
- Pro level to Consumer level conversion (attenuation of +4dBu IN to -10dBu OUT), maximum Input Level: +10dBm
- Consumer level to Pro level conversion (gain of -10dBu IN to +4dBu OUT), maximum Input Level: +6dBm

CONNECTIONS/WIRING

Two 10-pin 3.5 mm captive-screw terminals

AUDIO SPECIFICATIONS

- Frequency response of 15 Hz - 25 KHz
- THD less than .005% at nominal output level
- S/N ratio greater than 100 dB (IHF A)
- Crosstalk less than 80 dB
- Logarithmic attenuation range of 95 dB

RECOMMENDED ACCESSORIES	DESCRIPTION	PART #	PAGE #
NXF	NetLinx CardFrame	(FG2001)	298
NXS-NMS	NetModule Shell	(FG2009-10)	322

NXC-REL10

Relay Card, 10 Channels

(FG2020)

OVERVIEW

The NXC-REL10 Relay Card provides 10 relays to support devices that employ simple momentary or latching contact-closure control with LED feedback.

COMMON APPLICATION

Ideal for supporting devices in residential or commercial applications requiring momentary or latching contact-closure control.

FEATURES

Provides 10 isolated relays and front-panel LED feedback

D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

SPECIFICATIONS

POWER

260 mA @ 12 VDC (maximum)

OPERATION

Relays 1-10: ten relays, 1A @, 24VAC / 28VDC

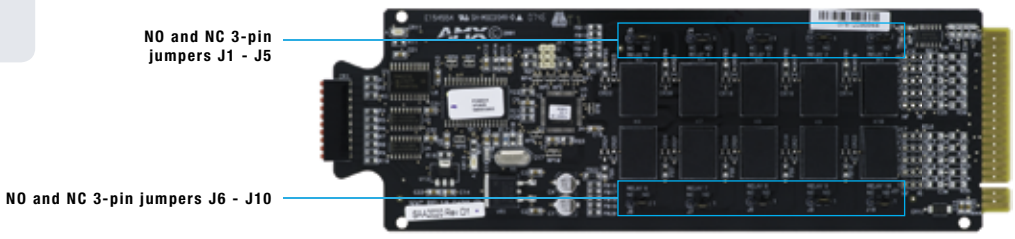
LEDS

10 red LEDs light to show ON status activity for each relay.

WIRING

- Two 10-pin 3.5 mm captive-screw terminals
- Commoning strip (metal)

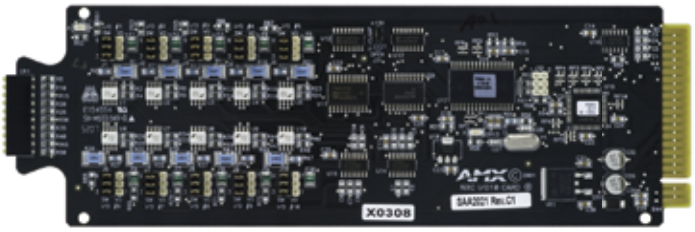
A CLOSER LOOK



NXC-I/O10

Input/Output Card, 10 Channels

(FG2021)



OVERVIEW

The NXC-I/O10 Input/Output Card provides 10 Input/Output channels and LED feedback. It acts as a logic-level input and responds to switch closures or voltage level (high/low) changes. The Switch (SW) and Voltage (VO) modes are set with on-board jumpers.

NOTE: The I/Os on this card are not dry closure; they are electronic switches that float at 5V when Off. Therefore, they should not be expected to work in situations that require true dry contact (or dry closure). The I/Os will work with the AMX PC1, PC2, UPC20 and UPC20+.

COMMON APPLICATION

Ideal for supporting devices in residential or commercial applications requiring logic-level input from switch closures or voltage level changes.

FEATURES

- 10 Input/Output control channels and front-panel feedback
- Acts as logic-level switch or input; senses high and low voltage states in voltage mode

D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

SPECIFICATIONS

POWER
180 mA @ 12 VDC (maximum)

OPERATION
I/O 1-10: 10 Input/Output channels

STATUS LEDS
10 yellow LEDs light to show ON status activity (1 per channel)

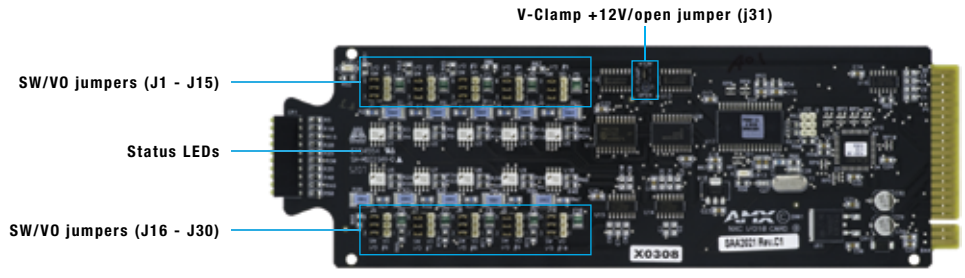
MODES
- Switch: Senses switch or relay contact closures or provides a logic-level output
- Voltage: Senses high- and low-voltage states

VOLTAGE CLAMP SETTINGS
- 12 V mode (default): Clamps any voltage connected to I/O ports 1-10 to 12 V
- VO mode: Use for connections that will draw more than 12 V

CONNECTIONS/WIRING
Two 10-pin 3.5 mm captive-screw terminals

DEVICE ID
$010b

A CLOSER LOOK



AC-SMB

Surface Mounting Bracket

(FG525)

OVERVIEW

These L-shaped brackets can be oriented to align flush with either the top or bottom surface and allow users to mount devices to almost any flat surface; floor, ceiling, wall, table or wherever is convenient for an installation. AC-SMB brackets can be used with NI-700/900 controllers, MAX-CSE, MAX-CSD10, NXA-AVB, NXA-AVB/ETHERNET, and IS-SPX-1000.

AC-RK

Accessory Rack Kit

(FG515)

OVERVIEW

The Accessory Rack Kit holds up to three NetLinx modules and measures only one rack unit in height.

SPECIFICATIONS

DIMENSIONS (HWD)

- 1 3/4" x 19" x 1/2" (4.4 cm x 48.3 cm x 1.3 cm)
- RU: 1

TRAINING AVAILABLE
For important installation, configuration and programming techniques, AMX University training is available. Just visit www.amx.com/training

D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

NXP-CPI16

NetLinx® Custom Panel Interface

(FG2410)

OVERVIEW

The NetLinx Custom Panel Interface provides a direct ICSNet connection to custom control panels. It's pin-for-pin compatible with devices that were designed for use with the AXP-CPI16 card (designed for integration with an Axcess Control System). Two 20-pin headers provide ribbon cable wiring or direct-connect insertion to circuit boards, providing inputs for up to 16 closures and 16 feedback outputs for LEDs. Under software control, the LED outputs can act as drivers to 8-segment bargraphs or as discrete outputs for feedback. In addition, the NXC-CPI16 also includes two quadrature inputs for mechanical or optical rotary encoders, used to control variable levels such as volume and lights, or lens focus and zoom.

COMMON APPLICATION

The NXP-CPI16 is a versatile, useful device for both custom panel and contact-closure applications.

FEATURES

- Integrates custom panels with 16 closure inputs and 16 LED outputs; pin-for-pin compatible with panels designed for AXP-CPI16
- Operates as a low-cost closure interface
- Acts as a driver for up to two 8-segment LED bargraphs; each bargraph uses eight of the 16 LED outputs
- Allows precise digital control of up to two levels from quadrature inputs
- Accepts mechanical or optical rotary encoders
- Offers programmable level response, provides software-driven performance adjustment and switchable coarse/fine level control

SPECIFICATIONS

DIMENSIONS (HWD)

2 3/4" x 1 7/8" x 1 3/8" (7.0 cm x 4.7 cm x 3.6 cm)

WEIGHT

- Device: 8.10 oz (229.6 g)
- Total Shipping: 1 lb (453.6 g)

POWER

12 VDC; maximum draw of 300 mA

INPUT CONNECTORS

- Indicator power: Two-pin 3.5 mm captive wire
- I/O Headers: Two 20-pin headers, 8 I/O channels each (16 closure inputs activated with GND or TTL Low (< 0.8 V)). Open collector outputs (0-28 VDC). Inputs are sampled approximately every 10 msec
- Rotary Encoder inputs: 2 Quadrature inputs on a 2 x 3 header (6-pin), two encoder inputs (4-pin) with a +5 V supply pin (supplying up to 100 mA) and a GND pin

ICSNET

- Two RJ-45 connectors for ICSNet connection ID BUTTON
- Generates an event from the CPI16 to allow you to assign new device numbers using the ID mode in NetLinx Studio

LED

ICSP status indicator (green)

OPEN COLLECTOR OUTPUTS

- 16-open collector outputs, acting as a switch to ground, up to 100 mA.
- Outputs can be connected to voltages ranging between 0 and + 28 V.
- Each output is updated every 10 msec

INCLUDED ACCESSORIES

- 6-pin header with 3 feet (0.914) of ribbon cable
- Two mating 20-pin headers, each with 3 feet of ribbon cable attached
- One green 2-pin 3.5 mm pitch captive wire connector for external indicator power

NXA-CF2NI

CompactFlash Upgrade for NI-X100 Series Controllers

NXA-CF2NI4G 4 GB CompactFlash Upgrade (FG2116-07)

US

OVERVIEW

The NXA-CF2NI is the perfect solution when more FLASH storage memory is needed in your NI-2100, NI-3100, or NI-4100 NetLinx controller.

NXA-CFM

CompactFlash Upgrade for NXC-ME260/64

NXA-CFM4G 4 GB CompactFlash Upgrade (FG2116-06)

US

OVERVIEW

The NXA-CFM is the perfect solution when more FLASH storage memory is needed in your NXC-ME260/64 NetLinx controller.

NXA-ICSNET

NetLinx ICSNet Communication Network Card

(FG2105-10)

OVERVIEW

The optional ICSNet communication network card from AMX provides the NI-2100 and NI-3100 NetLinx Integrated Controllers optional ICSNet communication network capability.

FEATURES

- Easily installed and adds ICSNet capability instantly
- Comes standard and pre-installed with the NetLinx NI-2100/ICS, NI-3100/ICS and NI-4100 Integrated Controllers
- Handles wiring runs of up to 1,000 feet for each ICSNet run
- Employs industry-standard Cat-5 wiring and connections

D-TOOLS CERTIFIED PRODUCT
This product can be found in the D-Tools manufacturer product database and specified as a third party device when building and proposing a system using D-Tools System Integrator software.

COUNTRY OF ORIGIN: MEXICO
To satisfy the requirements/regulations of existing or future government programs, this two-letter code is being provided to designate the country of origin for this product.

SPECIFICATIONS

DIMENSIONS (HWD)
2 3/8" x 2 3/8" x 1 3/8" (6.1 cm x 6.1 cm x 3.6 cm)

WEIGHT
1.2 oz (34.02 g)