

# NetLinx® Controllers

## NI-2100 NetLinx®

### Integrated Controller



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.

#### VERSATILE CONTROL

The NI-2100 offers a competitive solution with the capability to control various devices such as DVD players, projectors, lights, thermostats and more in home theaters, hotels, classrooms, auditoriums and other environments.

- 4 IR / Serial output ports
- 4 Digital I/O channels
- 4 Relay channels
- 3 Configurable RS-232 / RS-422 / RS-485 Serial ports
- Optional ICSNet Capability (requires optional ICSNet card)
- 1 Ethernet 10/100 Port
- 1 AXLink Bus Connector
- 404 MIPS processor speed
- 64 MB RAM
- 128 MB CompactFlash (upgradeable to 1 G)
- 1 MB Non-Volatile Memory
- Device Discovery enabled



R & B COMPUTER SYSTEMS LTD.

力衡電腦系統有限公司

2749 3325

[www.rnb.com.hk](http://www.rnb.com.hk)  
[rnb@rnb.com.hk](mailto:rnb@rnb.com.hk)

Unit 1009, Global Gateway Tower, 63 Wing Hong Street, Cheung Sha Wan, Kln., HK  
 香港九龍長沙灣永康街 63 號 Global Gateway Tower 1009 室

## NI-2100 (FG2105-04)

## POWER

700 mA @ 12 VDC

## MEMORY

- 64 MB SDRAM
- 1 MB of Non-volatile SRAM
- 128 MB Compact Flash (upgradeable to 1 GB factory programmed)

## ENCLOSURE

Metal with black matte finish

## DIMENSIONS (HWD)

- 3 1/2" x 17" x 3 1/2" (8.8 cm x 43.2 cm x 8.8 cm)
- 2 rack unit high

## WEIGHT

4.50 lbs (2.04 kg)

## CERTIFICATIONS

- FCC Part 15 Class B
- CE
- IEC 60950

## PROCESSING POWER

- 32-bit microprocessor
- 404 MIPS
- Real-time operating system

## FRONT PANEL COMPONENTS:

## LED INDICATORS

- LNK/ACT: Green LED lights when the Ethernet cables are connected and terminated correctly and 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 Master transmits data, sets channels on and off, sends data strings, etc.
- Input: Yellow LED blinks when the Master receives data from button pushes, strings, commands, channel levels, etc.

## RS-232/422/485 LEDS

- Three sets of red and yellow LEDs light to indicate Ports 1-3 are transmitting or receiving RS-232, 422, or 485 data
- TX LEDs (red) blink when transmitting data.
- RX LEDs (yellow) blink when receiving data.
- LED activity reflects transmission and reception activity

## RELAY LEDS

Four red LEDs light to indicate the relay channels 1-4 are active (closed) on Port 4.

## IR/SERIAL LEDS

Four red LEDs light to indicate the IR/Serial channels 1-4 are transmitting control data on Ports 5-8.

## I/O LEDS

Four yellow LEDs light when the I/O channels 1-4 are active on Port 9.

## 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.
- Ethernet Protocols used by NI-2100:
  - ICSP - peer to peer protocol used for both master-to-master and master-to-device communications.
  - ICMP - To connect over a network, ping an NI-2100.
  - Telnet - NetLinX telnet server provides a mechanism to configure and diagnose a NetLinX system.
  - HTTP - NI-2100 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-2100 has a built-in FTP server that conforms to RFC959.
  - integration! Solutions - integration! Solutions feature uses port 10500 for the XML based communication protocol.

## AXLINK CONNECTOR

- Black 4-pin (male) captive-wire connector for connecting external AxLink devices
- Axlink - 4-wire network (20.8 kbps) connects up to 255 Access devices, operates up to 3,000 feet of wiring and supplies 12 VDC power.

## PROGRAM PORT

DB-9 (male) connector that supports RS-232 communications to a PC for system programming and diagnostics.

## CONFIGURATION DIP SW

8-position DIP switch for setting the baud rate for Program Port. Baud rate settings are: 9600, 38,400 (default), 57,600, and 115,200 bps.

## ID BUTTON

Pushbutton sets device address ID (in conjunction with NetLinX Studio v1.2 build 200 or higher).

## RS-232/422/485: (PORTS 1-3)

Three RS-232/422/485 control ports using DB-9 (male) connectors with XON/XOFF (transmit on/transmit off), CTS/RTS (clear to send/request to send), and 300-115,200 baud.

## RELAY (PORT 4)

- 4-channel single-pole single throw relay ports
- Each relay is independently controlled
- Supports up to 4 independent external relay devices.
- Each relay can switch up to 24 VDC or 28 VAC @ 1 A.

## DIGITAL I/O (PORT 9)

- 4-channel binary I/O port for contact closure
- Each input is capable of 0-5 VDC voltage sensing. Input format is software selectable

## IR/SERIAL (PORTS 5-8)

- Each output is capable of two electrical formats: IR or Serial
- Four IR/Serial data signals can be generated simultaneously
- Supports up to 1.142 MHz carrier frequency

## INCLUDED ACCESSORIES

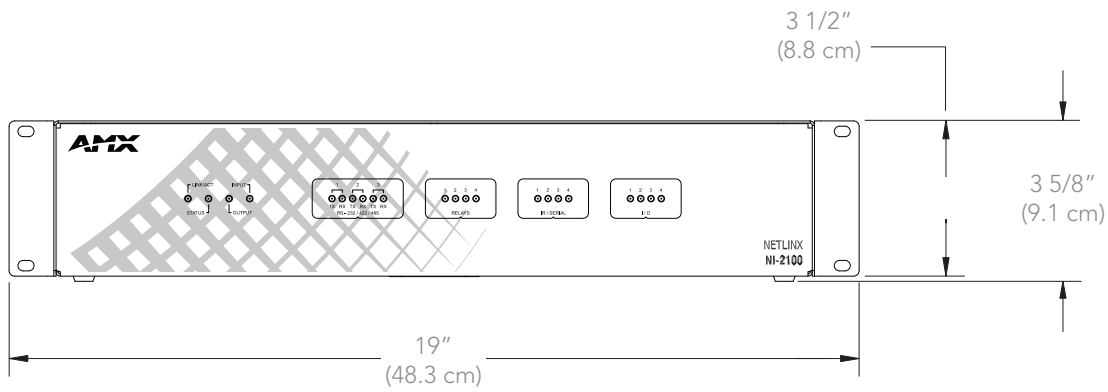
- NI-2100 Quick Start Guide
- 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-5025)
- 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047)
- 6-pin 3.5 mm mini-Phoenix female I/O connector (41-5063)
- 8-pin 3.5 mm mini-Phoenix female Relay connector (41-5083)
- Two CC-NIRC IR Emitters (FG10-000-11)
- Two removable rack ears (62-2105-07)
- One 8-pin Relay Common Strip (41-2105-01)
- Four rack mount screws (80-0186)
- Four washers (80-0342)

## OPTIONAL ACCESSORIES

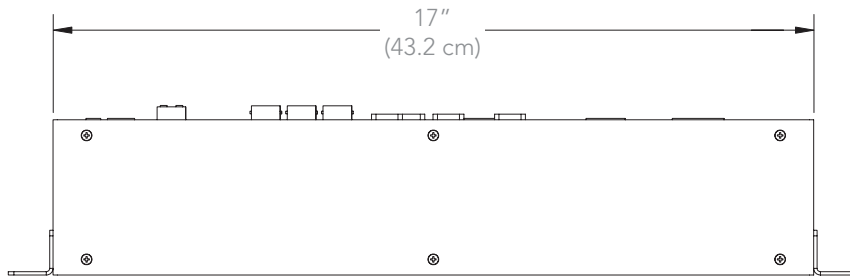
- NXA-ICSNet Card (FG2105-10)
- CSB Cable Support Bracket (FG517)
- PSN6.5 - 12 VDC Power Supply (FG423-41)
- CC-N232 RS232/422 Cables
- CC-NIRC IR Cables (FG10-000-11)
- CC-NREL Relay Cables
- CC-NSER IR/Serial Cables
- Upgrade Compact Flash (factory programmed with firmware):
  - NXA-CF2NI256M - 256 MB flash upgrade for NI-2100, NI-3100 & NI-4100 (FG2116-47)
  - NXA-CF2NI512M - 512 MB flash upgrade for NI-2100, NI-3100 & NI-4100 (FG2116-48)
  - NXA-CF2NI1G - 1 GB flash upgrade for NI-2100, NI-3100 & NI-4100 (FG2116-49)
- STS, Serial to Screw Terminal (FG959)
- NCK, NetLinX Connector Kit (FG2902)
- 2-pin, 3.5mm Black Male Phoenix Connector (41-5021)



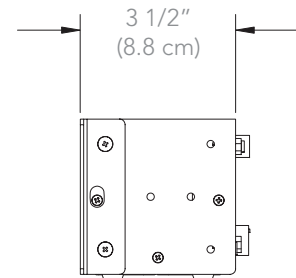
IT'S YOUR WORLD. TAKE CONTROL.



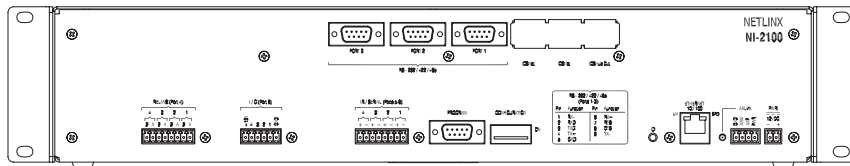
NI-2100  
(Front View)



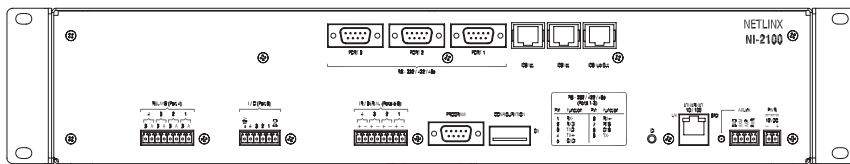
NI-2100  
(Top View)



NI-2100  
(Right View)



WITHOUT OPTIONAL ICSNET CARD INSTALLED  
(Back View)



WITH OPTIONAL ICSNET CARD INSTALLED  
(Back View)



IT'S YOUR WORLD. TAKE CONTROL.