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Find the *National Instruments NI 3110 XP* at our website: *Click HERE*

Industrial Controllers

NI 3100, NI 3110 *NEW!*

- Rugged, high-performance, fanless, industrial controllers
- Processor options
  - NI 3100 – 1.06 GHz Intel Celeron M
  - NI 3110 – 1.66 GHz Intel Core Duo
- 80 GB SATA HDD with Windows XP and 1 GB DDR 2 memory
- 10 to 30 VDC power input
- Panel mount footprint, 110 by 200 by 220 cm (4.3 by 7.9 by 8.66 in.)
- Weight without PCI board: 3.63 kg (8.0 lb)

Connectivity

- 4 Hi-Speed USB
- 2 gigabit Ethernet
- 1 PCI or PCI Express slot
- 1 MXI Express connector
- 1 RS232 port

Mounting Options

- Panel mounting holes included
- Optional wall mounting kit



Description	Model Number	Processor	OS	Hard Drive Options	Memory	Form Factor	Expansion Capabilities
Industrial controller	NI 3100	1.06 GHz Intel Celeron M	Windows XP	80 GB SATA HDD	1 GB DDR2	Panel mount	1 PCI or PCI Express board
Dual-core industrial controller	NI 3110	1.66 GHz Intel Core Duo	Windows XP	80 GB SATA HDD	1 GB DDR2	Panel mount	1 PCI or PCI Express board

Table 1. NI Industrial Controller Specifications

Overview

NI 3100 and NI 3110 industrial controllers are rugged, fanless, industrial PCs that feature a wide range of expansion capabilities to other National Instruments platforms. The NI 3100 incorporates a 1.06 GHz Intel Celeron M processor , and the NI 3110 features a 1.66 GHz Intel Core Duo processor. NI ships both systems with 1 GB DDR2 memory, an 80 GB or larger SATA hard-disk drive (HDD)., and Windows XP (see Table 1).

You can use high-performance NI industrial controllers to deploy NI LabVIEW software in a wide range of applications. These controllers also feature several standard PC connectivity options (see Figure 1).

- Four Hi-Speed USB ports
- Two gigabit Ethernet ports
- One PCI or PCI Express slot
- One integrated MXI Express x1 controller
- One CompactFlash memory card
- Dual monitor support with one DVI; splitter cable to analog VGA and DVI provided

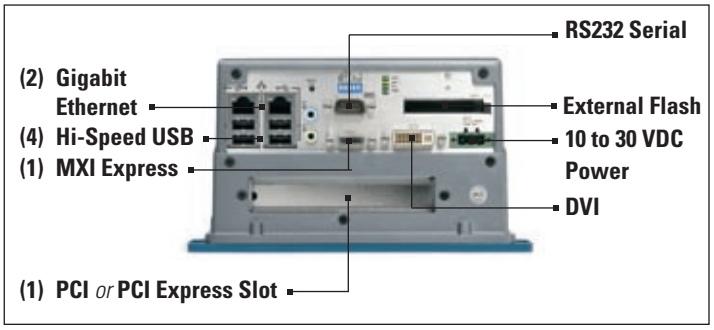


Figure 1. NI Industrial Controller Connectivity Options

These connectivity options provide expansion to a wide range of NI platforms including PXI, NI CompactDAQ, CompactRIO, Compact FieldPoint, USB data acquisition (DAQ), and NI plug-in DAQ hardware.

Supported Platforms	PXI	NI CompactDAQ	USB DAQ	PCI or PCI Express Plug-In
Industrial controller with Windows XP	MXI Express	Hi-Speed USB	Hi-Speed USB	<10 W half-length plug-in card

Table 2. Supported Industrial Controller Expansion I/O

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PCI and PCI Express Support and Operating Temperature

NI 31xx industrial controllers work with half-length PCI or PCI Express boards that dissipate less than 10 W and have been thermally tested by NI in the fanless configuration. Figure 2 shows the dimensions of a half-length and full-length PCI board.

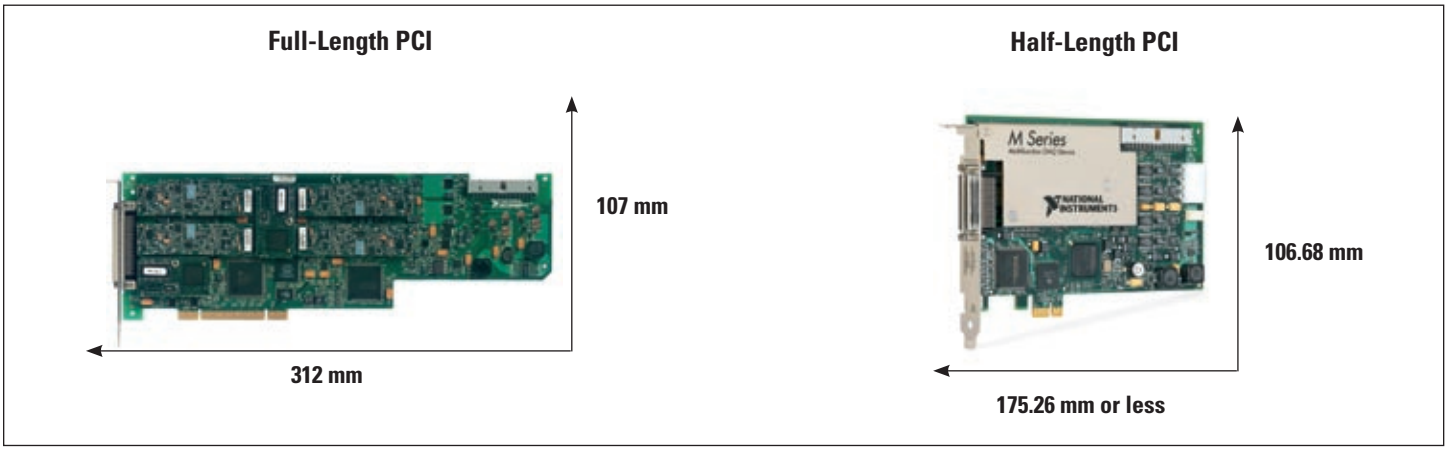


Figure 2. Full-Length and Half-Length PCI Board Dimensions

NI 31xx industrial controllers offer a 0 to 50 °C operating temperature without a PCI board installed. The operating temperature with a PCI or PCI Express board installed in the peripheral slot depends on the specifications of the PCI/PCI Express board and heat dissipation across the board. With a PCI or PCI Express board that dissipates less than 10 W of heat, the operating temperature is 0 to 45 °C. For a complete list of PCI and PCI Express boards supported by National Instruments, visit **ni.com/info** and enter **exfnrw**.

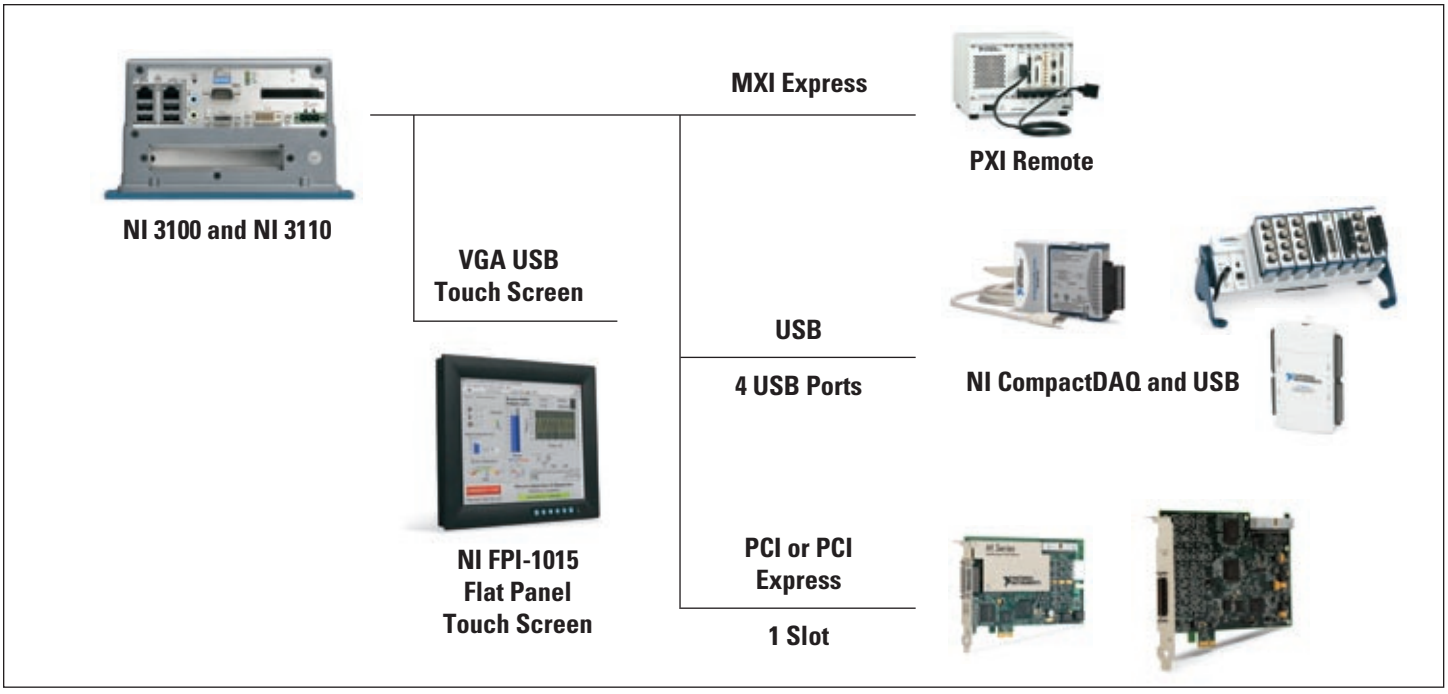


Figure 3. Industrial Controller and Expansion I/O Architecture Options

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Ordering Information

NI 3100.....780309-01
NI 3110.....780310-01
PS-5 power supply 778805-90

BUY NOW

For complete product specifications, pricing,and accessory information, call 800 813 3693 (U.S.) or go to **ni.com/pac**.

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Specifications

Electrical

Voltage	10 to 30 VDC
Power	40 W maximum (no PCI board installed)

Physical

Unit dimensions	110 by 200 by 220 cm (4.3 by 7.9 by 8.66 in.)
Weight	3.63 kg (8.0 lb) maximum (no PCI board installed)

Environment

Maximum altitude	2,000 m (at 25 °C ambient temperature)
Pollution degree	2

Indoor use only.

Operating Environment

No PCI board installed	0 to 50 °C
PCI board installed (10 W max)	0 to 45 °C

Note: Thermal performance is orientation-dependent and was tested with the heat sink at the top.

Storage Environment

Ambient temperature	-40 to 70 °C (tested in accordance with IEC-60068-2-1 and IEC-60068-2-2)
Relative humidity	5 to 95% noncondensing (tested in accordance with IEC-60068-2-56)

Shock and Vibration

Functional shock	30 g peak, 11 ms pulse (tested in accordance with IEC-60068-2-27; test profile developed in accordance with MIL-PRF-28800F)

Random Vibration

Operating vibration	5 to 500 Hz, 0.31 g_{rms}
Nonoperating vibration	5 to 500 Hz, 2.4 g_{rms} (tested in accordance with IEC-60068-2-64; nonoperating test profile exceeds the requirements of IL-PRF-28800F, Class 3)

Safety and Compliance

Safety

This product is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA 61010-1

Note: For UL and other safety certifications, refer to the product label or visit **ni.com/certification**, search by model number or product line, and click the appropriate link in the Certification column.

Electromagnetic Compatibility

This product is designed to meet the requirements of the following standards of EMC for electrical equipment for measurement, control, and laboratory use:

- EN 61326 (IEC 61326): Class A emissions; Basic immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions
- AS/NZS CISPR 11: Group 1, Class A emissions
- FCC 47 CFR Part 15B: Class A emissions
- ICES-001: Class A emissions

Note: For EMC compliance, operate this device according to product documentation.

CE Compliance

This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

- 2006/95/EC; Low-Voltage Directive (safety)
- 2004/108/EC; Electromagnetic Compatibility Directive (EMC)

Note: Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit **ni.com/certification**, search by model number or product line, and click the appropriate link in the Certification column.

Online Product Certification

Refer to the product Declaration of Conformity (DoC) for additional regulatory compliance information. To obtain product certifications and the DoC for this product, visit **ni.com/certification**, search by model number or product line, and click the appropriate link in the Certification column.

Environmental Management

NI is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to NI customers.

For additional environmental information, refer to the NI and the Environment Web page at **ni.com/environment**. This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

Waste Electrical and Electronic Equipment (WEEE)

EU Customers: At the end of their life cycle, all products must be sent to a WEEE recycling center. For more information about WEEE recycling centers and National Instruments WEEE initiatives, visit **ni.com/environment/weee.htm**.

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We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit **ni.com/ssp**.

Hardware Services

System Assurance Programs

NI system assurance programs are designed to make it even easier for you to own an NI system. These programs include configuration and deployment services for your NI PXI, CompactRIO, or Compact FieldPoint system. The NI Basic System Assurance Program provides a simple integration test and ensures that your system is delivered completely assembled in one box. When you configure your system with the NI Standard System Assurance Program, you can select from available NI system driver sets and application development environments to create customized, reorderable software configurations. Your system arrives fully assembled and tested in one box with your software preinstalled. When you order your system with the standard program, you also receive system-specific documentation including a bill of materials, an integration test report, a recommended maintenance plan, and frequently asked question documents. Finally, the standard program reduces the total cost of owning an NI system by providing three years of warranty coverage and calibration service. Use the online product advisors at **ni.com/advisor** to find a system assurance program to meet your needs.

Calibration Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit **ni.com/calibration**.

Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit **ni.com/services**.

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