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PXIe-8245 Getting Started

2023-04-03

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Getting Started Guide

This document describes how to install and configure the necessary hardware and software components to begin using the PXIe-8245.

You need the following items to set up and use the PXIe-8245.

- PXIe-8245 GigE interface device
- Ethernet cable
- PXIe computer running Microsoft Windows 10 with at least one available slot
- PXI Platform Services software
- Optional software for developing applications:
  - LabVIEW 2020

Note Before you begin, install and configure your chassis and controller.

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Verifying the System Requirements

To use the PXIe-8245, your system must meet certain requirements. For more information about minimum system requirements, recommended system, and supported application development environments (ADEs), refer to the readme, which is installed or available at ni.com/manuals.

Unpacking the Kit

Notice To prevent electrostatic discharge (ESD) from damaging the device, ground yourself using a grounding strap or by holding a grounded object, such as your computer chassis.

1. Touch the antistatic package to a metal part of the computer chassis.

2. Remove the device from the package and inspect the device for loose components or any other sign of damage.

> **Notice** Never touch the exposed pins of connectors.

> **Note** Do not install a device if it appears damaged in any way.

3. Unpack any other items and documentation from the kit.

Store the device in the antistatic package when the device is not in use.

PXIe-8245 Kit Contents

The following items are included in the device kit:

- PXIe-8245
- Documentation:
  - **PXIe-8245 Getting Started Guide** (this document)
  - **PXIe-8245 Safety, Environmental, and Regulatory Information**

Preparing the Environment

Ensure the environment in which you are using the PXIe-8245 meets the following specifications.

Operating environment	
Ambient temperature range	0 °C to 55 °C
Relative humidity range	10% to 90%, noncondensing
Maximum altitude	2,000 m (800 mbar) (at 25 °C ambient temperature)
Pollution Degree	2

Indoor use only.

> **Note** For complete specifications, refer to the specifications document for your device at ni.com/manuals.

Installing the Application Software and Driver

Before installing your hardware, you must install the application software and device driver. Install the software in the following order:

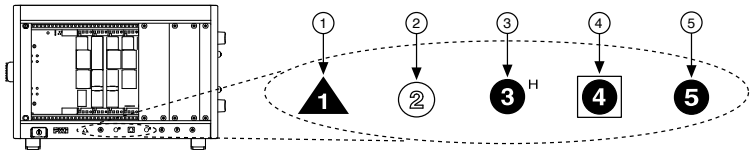
1. Install PXI Platform Services.
2. Install LabVIEW (optional).

Installing the PXIe-8245

Notice To prevent damage to the PXIe-8245 caused by ESD or contamination, handle the module using the edges or the metal bracket.

1. Ensure the AC power source is connected to the chassis before installing the module.
   The AC power cord grounds the chassis and protects it from electrical damage while you install the module.
2. Power off the chassis.
3. Inspect the slot pins on the chassis backplane for any bends or damage prior to installation. Do not install a module if the backplane is damaged.
4. Remove the black plastic covers from all the captive screws on the module front panel.
5. Identify a supported slot in the chassis. The following figure shows the symbols that indicate the slot types.

Figure 1. Chassis Compatibility Symbols



1. PXI Express System Controller Slot
2. PXI Peripheral Slot
3. PXI Express Hybrid Peripheral Slot
4. PXI Express System Timing Slot

5. PXI Express Peripheral Slot

6. Touch any metal part of the chassis to discharge static electricity.
7. Place the module edges into the module guides at the top and bottom of the chassis. Slide the module into the slot until it is fully inserted.
8. Secure the module front panel to the chassis using the front-panel mounting screws.

> **Note** Tightening the top and bottom mounting screws increases mechanical stability and also electrically connects the front panel to the chassis, which can improve the signal quality and electromagnetic performance.

9. Cover all empty slots using EMC filler panels or fill using slot blockers to maximize cooling air flow, depending on your application.
10. Power on the chassis.

> **Note** The first time you start the development computer after installing the hardware, allow several seconds for the drivers to load.

Confirming the Device is Recognized

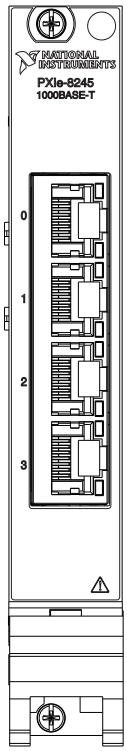
To confirm that the device is properly installed and the hardware is recognized, complete the following steps:

1. Select **Start** » **All Programs** » **National Instruments** » **Measurement & Automation Explorer** to open Measurement & Automation Explorer (MAX).
2. Verify that the PXIe-8245 appears under **My System** » **Devices and Interfaces**.

Front Panel

The following figure shows the PXIe-8245 front panel.

Figure 1. PXIe-8245 Front Panel



The PXIe-8245 provides four standard Gigabit Ethernet ports (Port 0 to Port 3).

Table 1. Ethernet LED Status Definitions

LED	Status	Definition
Activity/Link	Unlit	No link
	Green (Solid)	Linked
	Green (Blinking)	Data activity
Link Speed	Unlit	10 Mbps connection
	Green	100 Mbps connection
	Amber	1,000 Mbps connection

Troubleshooting

If an issue persists after you complete a troubleshooting procedure, search our KnowledgeBase for additional information our technical support engineers create as they answer common user questions and resolve unexpected issues.

What Should I Do if the PXIe-8245 Does Not Appear in MAX?

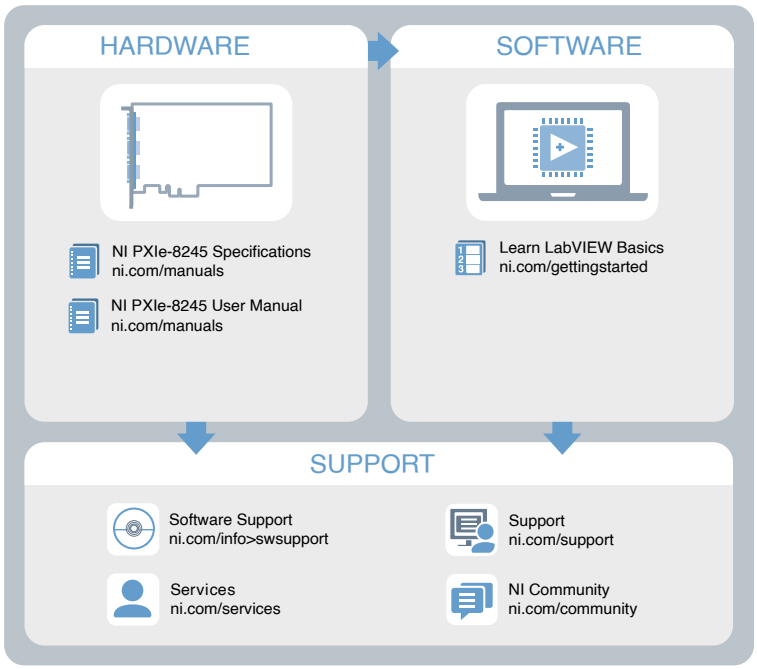
1. In the MAX configuration tree, expand **Devices and Interfaces**.
2. Expand the **Chassis** tree to see the list of installed hardware, and press <F5> to refresh the list.
3. If the module is still not listed, power off the system, ensure that all hardware is correctly installed, and restart the system.
4. Navigate to the Device Manager. Right-click the Start button, and select **Device Manager**
5. Verify the PXIe-8245 appears in the Device Manager.
    1. Under an NI entry, confirm that a PXIe-8245 entry appears.

        Note If you are using a PC with a device for PXI remote control system, under **System Devices**, also confirm that no error conditions appear for the **PCI-to-PCI Bridge**.

    2. If error conditions appear, reinstall the PXI Platform Services driver.

Where to Go Next

Refer to the following figure for information about other product tasks and associated resources for those tasks.



NI Services

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