PXIe-5108 User Manual

2025-11-26

Contents

PXIe-5108 User Manual

The PXIe-5108 User Manual provides detailed descriptions of the product functionality and the step by step processes for use.

Looking for Something Else?

For information not found in the User Manual for your product, such as specifications and API reference, browse ***Related Information***.

Related information:

- PXIe-5108 Specifications
- NI-SCOPE User Manual
- NI-SCOPE Properties
- NI-SCOPE LabVIEW VIs
- NI-SCOPE C Function Reference
- NI-SCOPE .NET API Overview
- NI-SCOPE Python API
- NI-SCOPE LabVIEW NXG
- NI-SCOPE and LabVIEW Compatibility
- LabVIEW User Manual
- Release Notes
- License Setup and Activation
- Dimensional Drawings
- Product Certifications
- Letter of Volatility
- Discussion Forums
- NI Learning Center

PXIe-5108 Overview

The PXIe-5108 is a 14-bit, high-density PXI oscilloscope for engineers and technicians. Use the PXIe-5108 in applications including custom acquisition, triggering, signal processing, and data streaming and analysis.

PXIe-5108 Key Features

The PXIe-5108 has the following features and capabilities.

- Four or eight simultaneously-sampled channels
- Input voltage range from 200 mVpk-pk to 80 Vpk-pk
- Up to 3.2 GB/s streaming data rate to host
- Up to 250 MS/s sample rate and 100 MHz analog bandwidth

Driver Software

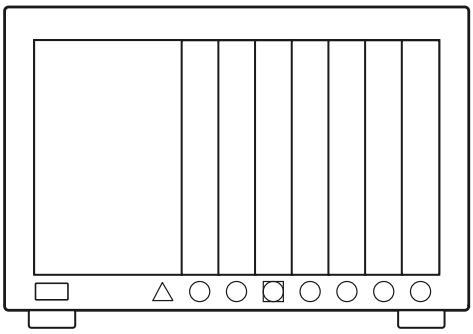
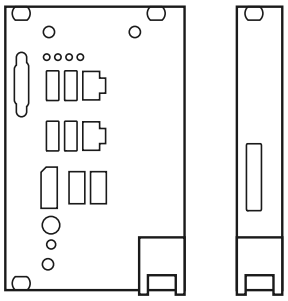
This device was first supported in NI-SCOPE 2025 Q3. NI-SCOPE provides application programming interfaces for many development environments.

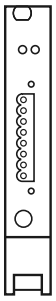
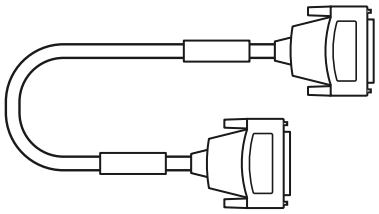
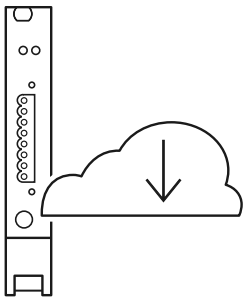
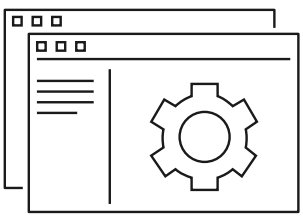
Components of a PXIe-5108 System

The PXIe-5108 is designed for use in a system that may require hardware, drivers, and software to optimize PXIe-5108 for your application. Use the minimum required PXIe-5108 system components as a starting point for building your system.

Note A system and the surrounding environment must meet the requirements defined in the relevant specifications document(s).

Table 1. Minimum Required PXIe-5108 System Components

Component	Description and Recommendations
PXI Chassis 	A PXI chassis houses the PXIe-5108 and supplies power for PXIe-5108 functions.
PXI Controller or PXI Remote Control Module 	You can install a PXI controller or a PXI remote control (MXI) module depending on your system requirements. These components, installed in the same PXI chassis as the PXIe-5108, interface with the instrument using NI device drivers.
Oscilloscope	Your PXIe-5108 oscilloscope instrument.

Component	Description and Recommendations
	
Cables and Accessories 	Cables and accessories allow connectivity to/from your instrument for measurements. Refer to ***Cables and Accessories*** for recommended cables and accessories and guidance.
NI-SCOPE Driver 	Instrument driver software that provides functions to interact with the PXIe-5108 and execute measurements using the PXIe-5108.
NI Applications 	NI-SCOPE offers driver support for the following applications: • InstrumentStudio • LabVIEW • C/C++ • .NET

Component	Description and Recommendations
	• Python • LabVIEW NXG

Note For optimal performance, use the most current version of NI-SCOPE with the PXIe-5108. You can find the NI-SCOPE driver requirements in the ***NI-SCOPE User Manual***.

Part Numbers for Recommended Cables and Accessories

Use part numbers to purchase the cables and accessories NI recommends to optimize the performance of PXIe-5108.

Table 2. Part numbers for recommended cables and accessories

Accessory/ Cable	Description	Part Number
PXI slot blockers	Fill empty instrument slots in a PXI chassis. For more information about installing slot blockers and filler panels, go to `ni.com/r/pxiblocker`.	199198-01
AUX 0 cable	SHH19-MH19-AUX shielded single-ended cable, 1 m	784091-01
mHDMI to BNC cable	Connects digital signals to the AUX 0 connector on the PXIe-5108 front panel.	786979-01
mHDMI to SMA cable	Connects the AUX 0 MHDMR front panel connector of the PXIe-5108 oscilloscope to the two SMA PFI lines of up to four PXIe-5108 waveform generators.	789939-01
AUX 0 accessory terminal block	SCB-19 noise rejecting, shielded AUX I/O connector block	783959-01
Cable adaptor	NI recommends using an SMB (f)-to-BNC (f) cable adaptor to connect the following probes to the PXIe-5108. • CP500X—500 MHz, 1.2 m, 10X Cable Divider Probe	781449-01 for one adaptor or 781449-10 for ten adaptors

Accessory/ Cable	Description	Part Number
	• CP400X—400 MHz, 2 m, 10X Cable Divider Probe • SP500X—500 MHz, 10x Passive Probe • SP500C—500 MHz, 100x Passive Probe • NI-5191—800 MHz, Differential Active Probe • SA1000X—1 GHz Single-Ended Active Probe • SA1500X—1.5 GHz Single-Ended Active Probe • SA2500X—2.5 GHz Single-Ended Active Probe	
Differential Active Probe	DA200025x, 2 GHz, 25X Differential Active Probe	789810-01

Related information:

- Installing Slot Blockers and Filler Panels
- InstrumentStudio User Manual

Software Options

NI provides multiple software options for interacting with the PXIe-5108.

Table 3. PXIe-5108 Software Options

Use Case	Software Option
Acquire and analyze data without programming	InstrumentStudio
Create custom measurements and automation applications	NI-SCOPE instrument driver

Note You can use a combination of these software options for your

application.

PXIe-5108 Examples

NI installs example code with your software or driver that demonstrates the functionality of PXIe-5108. The example code helps you advance your knowledge, and provides building blocks for your own applications.

The experience can differ slightly across products and versions. The example codes generally install with your NI product or driver. You can access these examples from within NI software.

Installed Example Locations

Software Application	Installed Example Locations
LabVIEW	*<Program Files>*\NI\LVAddons\niscope\1\examples\instr\niScope
ANSI C or Microsoft Visual C/C++	*<USERS>*\Public\Documents\National Instruments\NI-SCOPE\Examples\c
.NET	*<USERS>*\Public\Documents\National Instruments\NI-SCOPE\Examples\DotNET 4.X

Common NI-SCOPE Examples

NI-SCOPE Example	Description
niScope EX Getting Started.vi	This example opens a session to the NI-SCOPE driver. In the example, the Auto Setup VI configures the session properties and displays the acquired channel data.
niScope EX Quick Start.vi	This example opens and configures an NI-SCOPE session. The example allows you to experiment with numerous configurations, including acquisition types and triggering modes. This example supports nearly the entire functionality of NI-SCOPE. This example is designed in a way that if the recommended input signal is used, most configurations return valid results.
niScope EX Configured Acquisition.vi	This example configures all the vertical, horizontal, and triggering properties of the digitizer before every acquisition. The example allows you to experiment with numerous configurations, including acquisition types and triggering modes. This example supports nearly the entire functionality of

NI-SCOPE Example	Description
	NI-SCOPE.
`niScope EX Fetch Forever.vi`	This example demonstrates how to use continuous acquisition to fetch a continuous record of data until you press **Stop**.
`niScope EX Stream to Disk.vi`	This example demonstrates streaming a continuous acquisition to disk.
`niScope EX Advanced Measurement Library.vi`	This example illustrates using some of the advanced measurement library functions such as waveform processing and filtering.
`niScope EX Multi-Device Configured Acquisition (TClk).vi`	This example demonstrates how to easily synchronize an arbitrary number of digitizers with NI-TClk.

Browsing and Searching for Examples in NI Example Finder

Use NI Example Finder to browse and to search for examples.

You can use NI Example Finder to find examples for the following products.

- LabVIEW
- LabWindows/CVI
- NI drivers accessible from LabVIEW
- NI drivers accessible from LabWindows/CVI

1. Launch LabVIEW or LabWindows/CVI.
2. Open NI Example Finder.

Option	Description
LabVIEW	Select **Help** » **Find Examples.** from the menu bar.
LabWindows/CVI	Click **Find Examples...** from the Examples section of the Welcome Page.

   NI Example Finder launches.
3. **Optional:** Configure NI Example Finder for LabWindows/CVI.
   a. Click **Setup**. Configure Example Finder opens.
   b. In Configure Example Finder, click **Software**, then select LabWindows/CVI, and click **OK**.

   NI Example Finder updates with all the examples for LabWindows/CVI.
4. Search the example VIs for your product.

Option	Description
Click the Browse tab.	Choose **Browse** when you want to drill down through folders to find examples organized by task category.

Option	Description
	Tip Examples installed with NI drivers or third-party drivers are often found within the **Hardware Input and Output** folder. Examples installed with toolkits or modules are often found within the **Toolkits and Modules** folder.
Click the Search tab.	Choose **Search** when you want to find examples by searching for topics, products, or modules relevant to your application.

5. To open an example, double-click the folder or the example.

Tip You can modify an example VI to fit your application. You can also copy and paste from one or more examples into a VI that you create.

PXIe-5108 Front Panel

Figure 1. PXIe-5108 (4 Channel) and PXIe-5108 (8 Channel) Front Panel

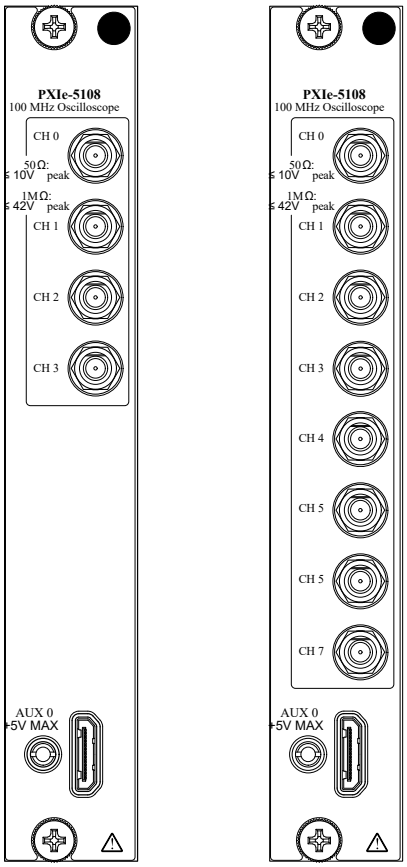


Table 4. Connectors

Signal	Connector Type	Description
CH<0..7>	SMB	Analog input connection; digitizes data and triggers acquisitions
AUX 0	MHDMR	Sample Clock or Reference Clock input, Reference Clock output, bidirectional digital PFI, and 3.3 V power output

PXIe-5108 SCB-19 Pinout

You can use the SCB-19 connector block to connect digital signals to the AUX 0 connector on the PXIe-5108 front panel. Refer to the following figure and table for information about the SCB-19 signals when connected to the AUX 0 front panel connector.

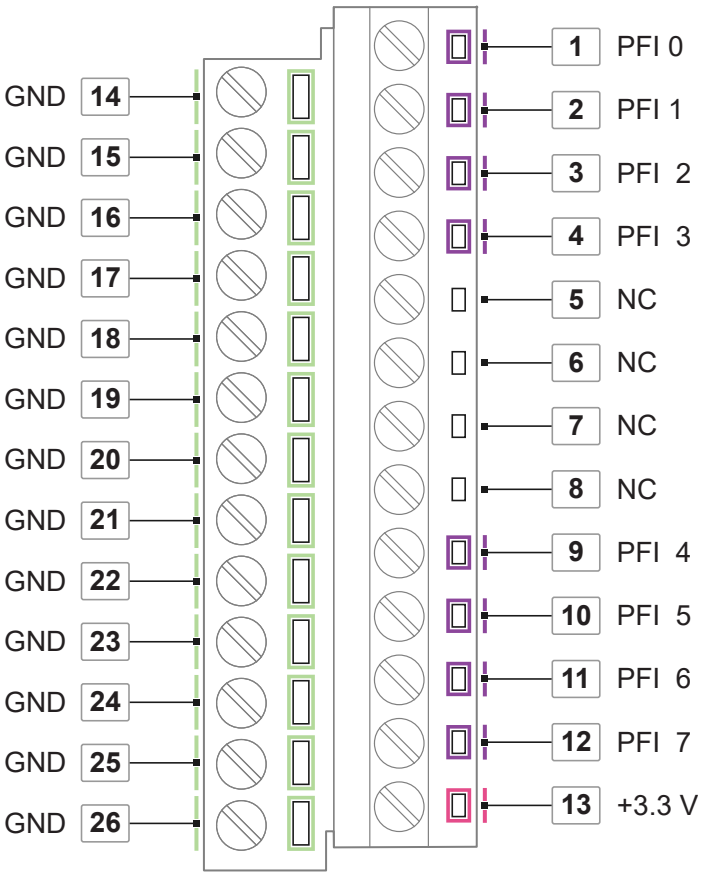


Table 5. SCB-19 Signal Descriptions

Pin	Signal	Signal Description
1	PFI 0	Bidirectional PFI line
2	PFI 1	Bidirectional PFI line
3	PFI 2	Bidirectional PFI line
4	PFI 3	Bidirectional PFI line

Pin	Signal	Signal Description
5	NC	No connection
6	CLK IN	Used to import an external reference clock or sample clock
7	NC	No connection
8	CLK OUT	Used to export the reference clock
9	PFI 4	Bidirectional PFI line
10	PFI 5	Bidirectional PFI line
11	PFI 6	Bidirectional PFI line
12	PFI 7	Bidirectional PFI line
13	+3.3 V	+3.3 V power (200 mA maximum)
14 to 26	GND	Ground reference for signals

Mini-HDMI Breakout to SMA Cable Assembly Pinout

The mini-HDMI breakout to SMA cable assembly connects the AUX 0 MHDMR front panel connector of the PXIe-5108 oscilloscope to the two SMA PFI lines of up to four PXIe-5108 waveform generators within a PXIe-5108 to enable waveform-synchronous measurements.

Figure 2. Mini-HDMI Breakout to SMA Cable Assembly

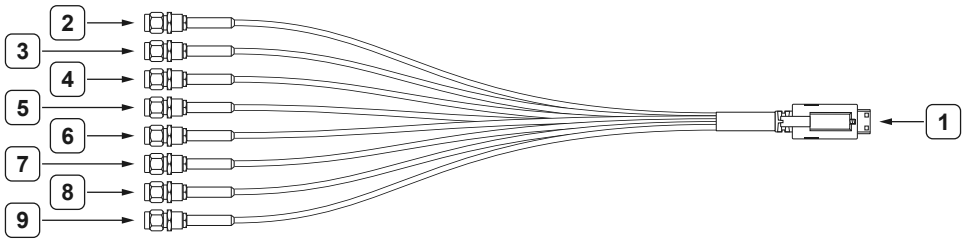


Table 6. Mini-HDMI Breakout to SMA Cable Assembly Signal Descriptions

Item in Figure	Label	Connector	Description
1	MINI-HDMI BREAKOUT TO 8 SMA	Mini-HDMI (m)	Interface to PXIe-5108 AUX 0 interface connector[1]
2	PFI 0	SMA (m)	Bidirectional PFI line.
3	PFI 1	SMA (m)	Bidirectional PFI line.
4	PFI 2	SMA (m)	Bidirectional PFI line.
5	PFI 3	SMA (m)	Bidirectional PFI line.
6	PFI 4	SMA (m)	Bidirectional PFI line.
7	PFI 5	SMA (m)	Bidirectional PFI line.
8	PFI 6	SMA (m)	Bidirectional PFI line.
9	PFI 7	SMA (m)	Bidirectional PFI line.

Refer to the installation procedures for the PXIe-5108 to learn how to correctly connect all mini-HDMI breakout to SMA cable assemblies in your system.

1. Mini-HDMI and MHDMR are equivalent connectors.

PXIe-5108 AUX 0 Breakout Cable to 6 BNCs Pinout

You can use the AUX 0 Breakout Cable to 6 BNCs to connect digital signals to the AUX 0 connector on the PXIe-5108 front panel. Refer to the following figure and table for information about the AUX 0 Breakout Cable to 6 BNCs signals when connected to the AUX 0 front panel connector.

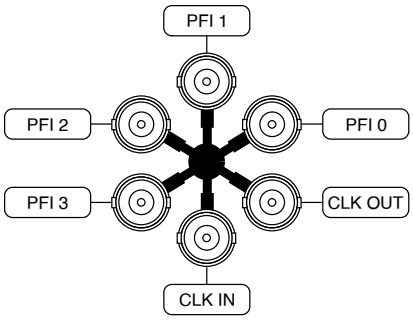
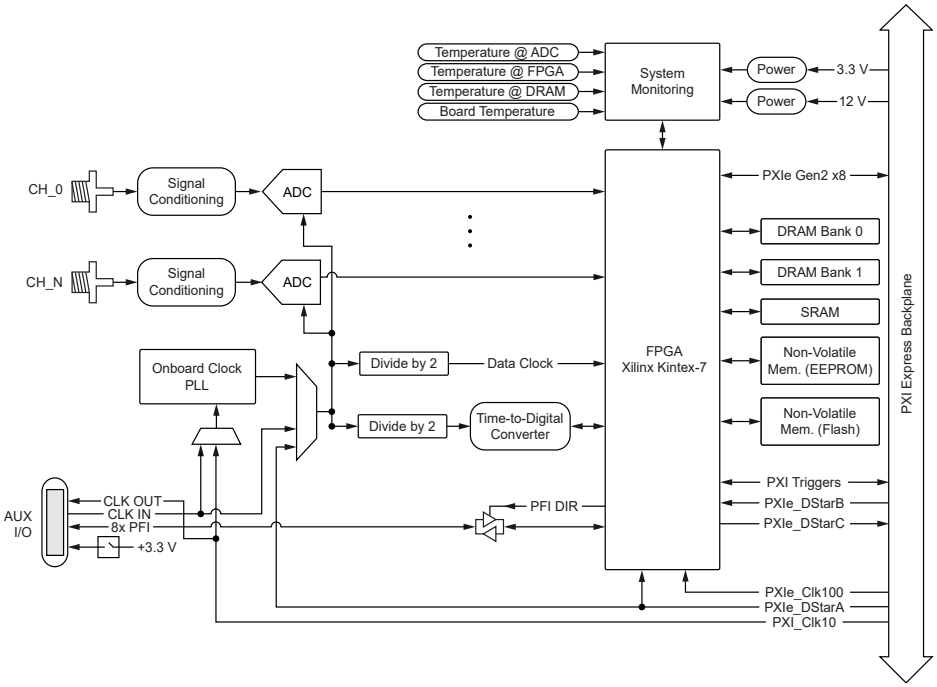


Table 7. AUX 0 Breakout Cable to 6 BNCs Signal Descriptions

Signal	Connector Type	Description
CLK IN	BNC female	Used to import an external reference clock
CLK OUT		Used to export the reference clock
PFI 0		Bidirectional PFI line
PFI 1		Bidirectional PFI line
PFI 2		Bidirectional PFI line
PFI 3		Bidirectional PFI line

PXIe-5108 Block Diagram

The PXIe-5108 is represented by the following high-level block diagram.



PXIe-5108 Kit Contents

Identify the contents of the PXIe-5108 kit.

PXIe-5108 Kit Contents

1. PXIe-5108 Module
2. PXIe-5108 Output Connector Assembly
3. PXIe-5108 Documentation
4. Maintain Forced Air Cooling Note to Users
5. NI-SCOPE Note to Users

Unpacking the Kit

Take precautions to prevent electrostatic discharge when unpacking and inspecting your hardware.

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.

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

Installing the Software

1. Close all programs before installing the software.
2. Visit ni.com/downloads to download the NI-SCOPE driver software. Follow the instructions in the installation prompts to install the default installation. Windows users may see access and security messages during installation. Accept the prompts to complete the installation.

   Note For troubleshooting information, contact NI technical support or visit ni.com/support.

3. When the installer completes, restart your system.

Configuring the Hardware in MAX

Use Measurement & Automation Explorer (MAX) to configure your NI hardware. MAX informs other programs about which devices reside in the system and how they are configured.

MAX is automatically installed with the instrument design libraries and NI-SCOPE.

1. Launch MAX.
2. In the Configuration pane, expand **Devices and Interfaces** to see the list of installed devices.

   Installed devices appear under the name of their associated chassis.

3. Expand your **Chassis** tree item.
   MAX lists all devices installed in the chassis. PXIe-5108 devices appear as NI-RIO devices in the list. Your default device names may vary.

   > **Note** If you do not see your hardware listed, refer to the ***Troubleshooting*** section of this document.

4. Record the name MAX assigns to the hardware. Use this identifier when programming the PXIe-5108.

   > **Note** When you install, uninstall, or move an NI-RIO device in your system, resource identification of your NI-RIO devices may change. Whenever any of these changes occur, verify resource identification of all your NI-RIO devices in MAX, and, if necessary, make changes to your software and documentation.

Installing the PXIe-5108

You must install the software before installing the hardware.

Before you install the hardware, refer to the guidelines in the chassis documentation to ensure that the PXIe-5108 can cool itself effectively.

The PXIe-5108 is a single-slot module with one backplane connector. The module may be installed into any PXI Express–compatible slot.

> **Notice** To prevent damage to the PXIe-5108 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. If the chassis has multiple fan speed settings, ensure the fans are set to the highest setting.

   > **Notice** Inadequate air circulation could cause the temperature inside the chassis to rise above the optimal operating temperature for the PXIe-5108, potentially causing thermal shutdown, shorter life spans, or improper performance.

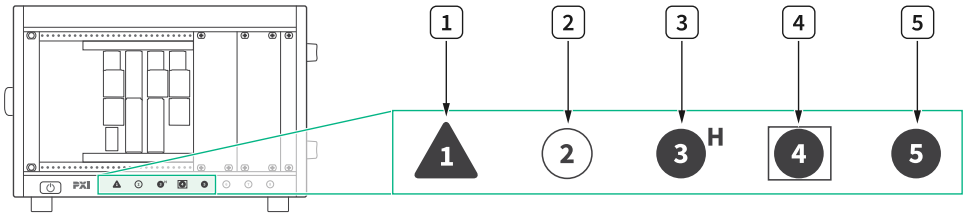
5. Position the chassis so that inlet and outlet vents are not obstructed.

   For more information about optimal chassis positioning, refer to the chassis documentation.

6. Remove the black plastic covers from all the captive screws on the module front panel.

7. Identify a supported slot in the chassis. The following figure shows the symbols that indicate the slot types.

Figure 3. Chassis Compatibility Symbols

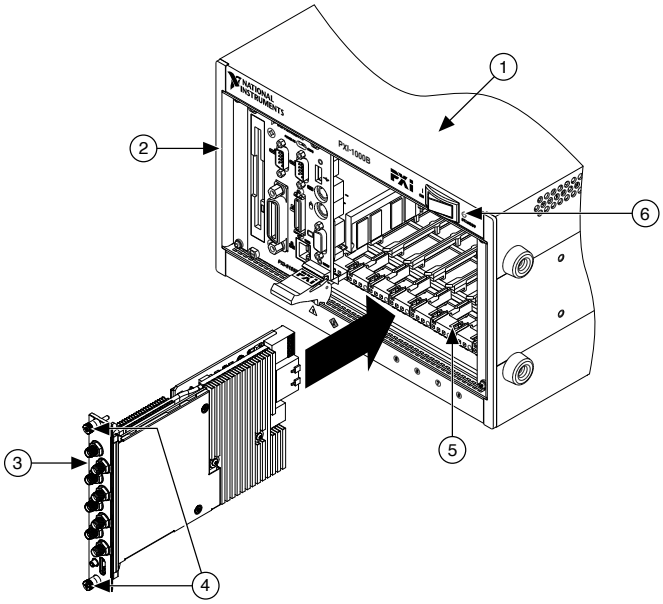


1. PXI Express System Controller Slot
2. PXI Peripheral Slot
3. PXI Express Hybrid Peripheral Slot
4. PXI Express System Timing Slot
5. PXI Express Peripheral Slot

The PXIe-5108 can be placed in PXI Express Hybrid peripheral slots, PXI Express system timing slots, or PXI Express peripheral slots.

8. Touch any metal part of the chassis to discharge static electricity.
9. 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.

Figure 4. PXIe-5108 Module Installation



1. Chassis
2. System Controller
3. Hardware Module
4. Front-Panel Mounting Screws

5. Module Guides
6. Power Switch

10. 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.

11. Cover all empty slots using either filler panels (standard or EMC) or slot blockers with filler panels, depending on your application.

> **Note** For more information about installing slot blockers and filler panels, go to ni.com/r/pxiblocker.

12. Power on the chassis.

Verifying the Installation

Before using the PXIe-5108, verify that it is installed correctly through Hardware Configuration Utility or Measurement & Automation Explorer (MAX).

Verifying the Installation Using Hardware Configuration Utility

Before using the PXIe-5108, verify that it is installed correctly through Hardware Configuration Utility.

1. Verifying the Installation in Hardware Configuration Utility
   NI recommends using Hardware Configuration Utility to perform and to validate initial hardware configuration.
2. Self-Calibrating the PXIe-5108 in Hardware Configuration Utility
   Performing self-calibration adjusts the PXIe-5108 for variations in the environment. The PXIe-5108 devices are externally calibrated at the factory, however you should perform a complete self-calibration after installation.

Verifying the Installation in Hardware Configuration Utility

NI recommends using Hardware Configuration Utility to perform and to validate initial hardware configuration.

1. Open Hardware Configuration Utility.
   The PXIe-5108 appears in the system pane automatically.
2. Record the name that Hardware Configuration Utility assigns to the PXIe-5108 or provide a custom name.
   Use this name when programming the PXIe-5108.
3. Validate that your instrument is installed correctly: select the PXIe-5108 module in the system pane, expand the **Troubleshooting** area of the configuration pane, and click **Self-test**.
   Hardware Configuration Utility reports when it has validated the hardware setup.

What Should I Do If the PXIe-5108 Does Not Appear in Hardware Configuration Utility?

Check if you must refresh the connection between the hardware and the software in Hardware Configuration Utility.

1. Click the refresh button ().
2. If the PXIe-5108 is still not listed, complete the following steps.
   a. Power off the system.
   b. Ensure that all hardware is correctly installed.
   c. Restart the system.
3. Right-click the **Start** button and select **Device Manager**.
4. Depending on your controller type, verify the Device Manager settings.

Controller type	Description
PXI controller	a. Verify that a **National Instruments** entry appears in the system device list. b. If error conditions appear in the list, right-click the module you are using in the **Device Manager** and select **Update Driver**.
MXI controller	a. Right-click **PCI-to-PCI Bridge** and select **Properties**. b. Verify that you enabled the bridge. c. Verify that no error conditions appear.

   If error conditions persist, reinstall the driver.
5. Restart your computer.

What Should I Do If the PXIe-5108 Fails the Self-Test in Hardware Configuration Utility?

1. Reset the PXIe-5108 through Hardware Configuration Utility and then perform the self-test again.
2. Restart the system, and then perform the self-test again.
3. Power off the chassis.
4. Reinstall the failed module in a different slot.

5. Power on the chassis.
6. Perform the self-test again.

> **Note** If the module fails the self-test again, contact NI or visit ni.com/support for further troubleshooting information.

Self-Calibrating the PXIe-5108 in Hardware Configuration Utility

Performing self-calibration adjusts the PXIe-5108 for variations in the environment. The PXIe-5108 devices are externally calibrated at the factory, however you should perform a complete self-calibration after installation.

1. Install the PXIe-5108 and let it warm up for the recommended warm-up time listed in the PXIe-5108 specifications.
2. Self-calibrate the PXIe-5108 by selecting the PXIe-5108 and clicking the **Self-Calibrate** button in Hardware Configuration Utility

Verifying the Installation Using Measurement & Automation Explorer (MAX)

Before using the PXIe-5108, verify that it is installed correctly through MAX.

1. Verifying the Installation in MAX
   To configure your NI hardware, use Measurement & Automation Explorer (MAX).
2. Self-Calibrating the PXIe-5108 in MAX
   Performing self-calibration adjusts the PXIe-5108 for variations in the environment. The PXIe-5108 devices are externally calibrated at the factory, however you should perform a complete self-calibration after installation.

Verifying the Installation in MAX

To configure your NI hardware, use Measurement & Automation Explorer (MAX).

MAX informs other programs about the NI hardware products in the system and their

hardware configuration. MAX is automatically installed with the driver.

Note MAX is not available on Linux.

1. Launch MAX.
2. In the configuration tree, expand **Devices and Interfaces** to see the list of installed NI hardware.
   Installed modules appear under the name of their associated chassis.
3. Expand your **Chassis** tree item.
   MAX lists all modules installed in the chassis. Your default names might vary.

   Note If you do not see your module in the list, press <F5> to refresh the list of installed modules. If the module is still not listed, power off the system, ensure that the module is correctly installed, and restart.

4. Record the name MAX assigns to the hardware. Use this identifier when programming the PXIe-5108.
5. Self-test the hardware by selecting the item in the configuration tree and clicking **Self-Test** in the MAX toolbar.
   The MAX self-test performs a basic verification of hardware resources.

What Should I Do If the PXIe-5108 Does Not Appear in MAX?

Check if you must refresh the connection between the hardware and the software in MAX.

1. In the MAX configuration tree, expand **Devices and Interfaces**.
2. To see the list of installed hardware, expand the **Chassis** tree and press **<F5>** to refresh the list.
3. If the PXIe-5108 is still not listed, complete the following steps.
   a. Power off the system.
   b. Ensure that all hardware is correctly installed.
   c. Restart the system.
4. Right-click the **Start** button and select **Device Manager**.
5. Depending on your controller type, verify the Device Manager settings.

Controller type	Description
PXI controller	a. Verify that a **National Instruments** entry appears in the system device list. b. If error conditions appear in the list, right-click the module you are using in the **Device Manager** and select **Update Driver**.
MXI controller	a. Right-click **PCI-to-PCI Bridge** and select **Properties**. b. Verify that you enabled the bridge. c. Verify that no error conditions appear.

If error conditions persist, reinstall the driver.

6. Restart your computer.

What Should I Do If the PXIe-5108 Fails the Self-Test in MAX?

1. Reset the PXIe-5108 through MAX and then perform the self-test again.
2. Restart the system, and then perform the self-test again.
3. Power off the chassis.
4. Reinstall the failed module in a different slot.
5. Power on the chassis.
6. Perform the self-test again.

Note If the module fails the self-test again, contact NI or visit ni.com/support for further troubleshooting information.

Self-Calibrating the PXIe-5108 in MAX

Performing self-calibration adjusts the PXIe-5108 for variations in the environment. The PXIe-5108 devices are externally calibrated at the factory, however you should perform a complete self-calibration after installation.

1. Install the PXIe-5108 and let it warm up for the recommended warm-up time listed in the .

Note Warm up begins when the PXI chassis has been powered on and the operating system has completely loaded.

2. Self-calibrate the PXIe-5108 by clicking the **Self-Calibrate** button in MAX or calling `niScope Cal Self Calibrate` (`niScope_CalSelfCalibrate`).

Note Low energy transients can appear at the output terminals of your PXIe-5108 during certain situations, such as power-up, power-down, device driver loading, and self-calibration.

Self-Calibrating the PXIe-5108

Self-calibration adjusts the PXIe-5108 for variations in the module environment.

Perform a complete self-calibration after first installing your module and letting it warm up for 15 minutes.

Note Warm-up begins after the chassis is powered, the device is recognized by the host, and the device is configured using NI-SCOPE. Running an included sample project or running the self-calibration using NI MAX configures the device and starts warm-up.

The PXIe-5108 is externally calibrated at the factory. Perform self-calibration in any of the following situations:

- After first installing the PXIe-5108 into your chassis
- After any module in the chassis is installed, uninstalled, or moved
- When the system is in an environment where the ambient temperature varies or the module temperature has drifted more than ±5 °C from the temperature at the last self-calibration
- To periodically adjust for small performance drifts that occur with product aging

Self-calibrate the PXIe-5108 depending on how you interact with the instrument.

Method	Procedure
Programmatic: NI-SCOPE	Use the Self Calibrate VI located on the **Functions** » **Measurement I/O** » **NI-SCOPE** » **Calibration** palette
Interactive: MAX	Click **Self Calibrate**

Making a Measurement with InstrumentStudio

1. Connect CH 0 to an input signal.
2. Search your computer for and launch InstrumentStudio.
3. In the instrument header menu in the upper-right corner of the panel (), add the PXIe-5108 to the large panel with **Add/Remove Devices**.
4. Click **Auto** to automatically configure device settings for the detected signal.
5. If the soft front panel is not already running, click **Run/Stop**.
6. Add oscilloscope measurements to the channel by selecting **Add/Remove** in the measurement table of the oscilloscope.

For more information on the measurements available for oscilloscopes in InstrumentStudio, refer to the ***InstrumentStudio Manual***.

Making a Measurement with LabVIEW

1. Launch LabVIEW.
2. Select **Help** » **Find Examples**.
3. Open the example VI that you want to use by selecting **Hardware Input and Output** » **Modular Instruments** » **NI-SCOPE (High-Speed Digitizers)**.

   Tip If you are not sure which example to run, use the Quick Start VI, which is found under **Hardware Input and Output** » **Modular Instruments** » **NI-SCOPE (High-Speed Digitizers)** » **Demos** » **niScope EX Quick Start.vi**.

4. Follow any setup instructions in the VI and specify any desired settings.
5. Click **Run** to run the example program.

Making a Measurement with .NET

1. Navigate to `<Public Documents>/National Instruments/NI-SCOPE/Examples/DotNET 4.X`.
2. Select the example you want to run and navigate to the `cs` folder.
3. Open the Visual Studio solution.
4. Click the **Start** button.
5. In the **Resource Name** drop-down menu, select the device name assigned to the device in MAX.
6. Specify the desired settings and click **Acquire**.