

INSTALLATION GUIDE

NI PXI-6683 Series

This guide contains instructions for installing your NI PXI-6683 or NI PXI-6683H module and NI-Sync software.

What You Need to Get Started

To set up and use the NI PXI-6683 Series, you need the following items:

- NI PXI-6683 Series Timing and Synchronization Module
- NI PXI-6683 Series User Manual*
- NI-Sync* CD
- One of the following software packages and documentation:
 - LabVIEW
 - LabWindows™/CVI™
 - Microsoft Visual C++ (MSVC)
- PXI or PXI Express (PXIe) chassis
- PXI or PXIe embedded controller or a desktop computer connected to the chassis using MXI hardware

Installing the Software

Refer to the `readme.htm` file that accompanies the *NI-Sync* CD for software installation directions.



Note Be sure to install the driver software *before* installing the NI PXI-6683 Series module.

Installing the Hardware

The following are general installation instructions. Consult the chassis user manual or technical reference manual for specific instructions and warnings about installing new modules.

1. Power off and unplug the chassis.



Caution Do *not* install the NI PXI-6683 Series module in the system controller slot (slot 1) of a chassis.

2. Choose an available slot in the chassis. Refer to the following table for more information about functionality.




NI PXI-6683: Install the NI PXI-6683 in an available PXI slot.

The NI PXI-6683 is a star trigger controller for PXI. It can replace PXI_CLK10 and control the PXI_STAR triggers. This functionality is only available when the NI PXI-6683 is installed in the system timing slot of a PXI chassis. The PXI triggers are accessible from any PXI slot.

NI PXI-6683H: Install the NI PXI-6683H in an available PXI slot. If you are using a PXI Express (PXIe) system, install the NI PXI-6683H in an available PXI or PXIe/hybrid slot.

The NI PXI-6683H is a special version of the NI PXI-6683, designed to also fit in hybrid slots on PXIe chassis. It does not have the ability to replace PXI_CLK10 or drive the PXI_STAR triggers.

Table 1. PXI/PXI Express Slot Type Compatibility

NI PXI Board	PXI System Timing Slot 	PXI Peripheral Slot 	PXI Express Hybrid Slot 
NI PXI-6683	✓*	✓†	—
NI PXI-6683H	✓†	✓†	✓†

* Compatible; PXI_CLK10, PXI_CLKIN, PXI_STAR, PXI_TRIG functionality available.
† Compatible; PXI_TRIG functionality available.

3. Remove the filler panel for the PXI/PXIe hybrid slot you chose in step 2.
4. Ground yourself using a grounding strap or by holding a grounded object. Follow the ESD protection precautions described in the *Unpacking* section of Chapter 1, *Introduction*, of the *NI PXI-6683 Series User Manual*.
5. Remove any packing material from the front panel screws and backplane connectors.
6. Slide the device into the PXI/PXIe hybrid slot. When you begin to feel resistance, pull up on the injector/ejector handle to latch the device.
7. Screw the front panel of the module to the front panel mounting rail of the chassis.

8. Visually verify the installation.
9. Plug in and power on the chassis.

The NI PXI-6683 Series module is now installed.

Verifying the Installation

During the first boot following the software and hardware installation of the NI PXI-6683 Series module, the OS detects the device and associates it with the NI-Sync driver software.

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