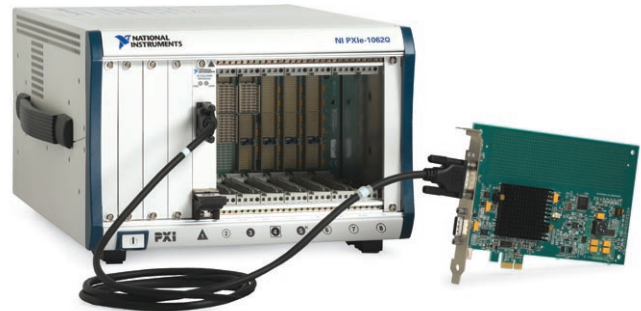


# PCI Express Control of PXI Express (MXI-Express for PXI Express)

## NI PXIe-PCle8361, NI PXIe-PCle8362, NI PCle-8361, NI PCle-8362, NI PXIe-8360

- Higher throughput
- PCI Express control of PXI Express/ CompactPCI Express
- Control of two PXI Express/ CompactPCI Express chassis from a single PCI Express board (NI PCle-8362)
- Sustained throughput
  - 208 MB/s (2 chassis, NI PXIe-PCle8362)
  - 92 MB/s (1 chassis, NI PXIe-PCle8361)
- Ability to use the same PCI Express boards (NI PCle-8361, NI PCle-8362) and cable as MXI-Express
- Software-transparent link that requires no programming
- Cabling up to 7 m
- Rugged connectivity



## Overview

With NI MXI-Express for PXI Express interface kits, PC users with PCI Express slots can exercise direct control of PXI Express systems using cabled PCI Express technology. NI MXI-Express for PXI Express, a high-bandwidth serial link transparent to software applications and drivers, provides the ability to use high-performance desktop computers, servers, and workstations to control PXI Express systems.

## PCI Express Control of PXI Express

With a MXI-Express for PXI Express link, you can transparently control a PXI Express system from any PCI Express slot, so you can use desktop computers, servers, and workstations to control PXI Express systems. MXI-Express for PXI Express features a transparent link where all PXI and PXI Express modules appear as PCI boards within the computer itself. However, you benefit from the increased number of slots, power and cooling per slot, module selection, and synchronization features provided by PXI. The MXI-Express for PXI Express link consists of an NI PCle-8361 or PCle-8362 board in the PC that is connected via a MXI-Express cable to an NI PXIe-8360 module in slot 1 of a PXI Express chassis. The NI PCle-8361 board provides one PCI Express link, which you can cable to an NI PXIe-8360 module in a PXI Express chassis. The NI PCle-8362 board provides two PCI Express links, each of which you can cable to individual NI PXIe-8360 modules in separate PXI Express chassis. Thus, you can use a single NI PCle-8362 board and two NI PXIe-8360 modules to simultaneously control two PXI Express systems. For your convenience, you can purchase either a complete MXI-Express for PXI Express kit with all necessary components or the PCI Express board, PXI Express module, and cable separately.

## Cabled PCI Express Technology

The NI PCle-8361 and PCle-8362 boards provide one or two cabled PCI Express links, respectively. The links have x1 (“by one”) lane widths. The NI PXIe-8360 module connects these PCI Express links to the PCI Express bus used in the PXI Express chassis backplane. Thus, all PXI and PXI Express modules appear as PCI boards within the computer itself.

## PCI Software Compatibility

PCI Express features software compatibility with PCI. Without making any modifications to your software, you can use the MXI-Express for PXI Express link with an application written for a PXI system controlled via a PCI or PCI Express remote controller, such as MXI-3, MXI-4, or MXI-Express.

## Multichassis PXI Systems

You can use a single NI PCle-8362 board to simultaneously control two PXI Express systems. You also can incorporate multiple NI PCle-8361 or PCle-8362 boards in a PC with multiple PCI Express slots to add PXI Express chassis to a system. You cannot use an NI PXIe-8360 module to daisy chain multiple PXI Express chassis. However, using MXI-4, you can connect a PXI Express chassis to a PXI chassis in a star or daisy-chain configuration within a single system. To connect a PXI Express chassis to a PXI chassis with MXI-4, install an NI PXI-8331 (copper) or PXI-8336 (fiber-optic) module in any PXI peripheral slot of the master PXI Express chassis, and connect it with the appropriate cable to a second PXI-8331 or PXI-8336 in slot 1 of the slave PXI chassis.

# PCI Express Control of PXI Express (MXI-Express for PXI Express)

## Ordering Information

For online configuration of a complete PXI system, including chassis, modules, and all accessories, visit [ni.com/pxiadvisor](http://ni.com/pxiadvisor).

### MXI-Express for PXI Express/CompactPCI Express Kit

NI PXIe-PCIe8362 ..... 779702-03  
Kit includes one PCI Express board (NI PCIe-8362), one PXI Express module (NI PXIe-8360), and one 3 m cable.

NI PXIe-PCIe8361 ..... 779701-03  
Kit includes one PCI Express board (NI PCIe-8361), one PXI Express module (NI PXIe-8360), and one 3 m cable.

### MXI-Express for PXI Express Interface Module

NI PXIe-8360 ..... 779700-01

### PCI Express MXI-Express Interface Board

NI PCIe-8362 ..... 779502-01

NI PCIe-8361 ..... 779504-01

### MXI-Express/ExpressCard MXI Cables

1 m ..... 779500-01

3 m ..... 779500-03

7 m ..... 779500-07

## BUY NOW

For complete product specifications, pricing, and accessory information, call 800 813 3693 (U.S.) or go to [ni.com/pxiadvisor](http://ni.com/pxiadvisor).

# PCI Express Control of PXI Express (MXI-Express for PXI Express)

## Specifications

Specifications are subject to change without notice.

## Bus Interface

Form factor .....	x1 PCI Express
Slot compatibility .....	x1, x4, x8, and x16 <sup>1</sup> PCI Express slots

<sup>1</sup>Some motherboard manufacturers intend the x16 slot for graphics use and preinstall a graphics board. Check with the motherboard manufacturer for alternative graphics solutions if using the x16 slot for a nongraphics board.

## Power Requirements

	Power Rail	Typical Current	Maximum Current
<b>NI PXIe-8360</b>	+3.3 V	2.5 A	3 A
	+5 V	0 A	0 A
	+12 V	0 A	0 A
	+5 V <sub>AUX</sub>	0.3 A	0.4 A
<b>NI PCIe-8361</b>	+3.3 V	1.800 A	2.000 A
	+3.3 V <sub>AUX</sub>	0 A	0 A
	+12 V	0 A	0 A
<b>NI PCIe-8362</b>	+3.3 V	580 mA	1.040 A
	+3.3 V <sub>AUX</sub>	10 mA	50 mA
	+12 V	0 A	0 A

## Physical

### Dimensions

NI PXIe-8360 .....	10.0 by 16.0 cm (3.9 by 6.3 in.)
NI PCIe-8361 .....	10.7 by 17.5 cm (4.4 by 6.9 in.)
NI PCIe-8362 .....	9.93 by 7.11 cm (3.91 by 2.8 in.)

### Slot requirements

NI PXIe-8360 .....	One 3U PXI Express system controller slot
NI PCIe-8361 and PCIe-8362 .....	One PCI Express slot

Maximum cable length ..... 7 m

Compatibility ..... Fully compatible with the PXI Express Hardware Specification, Revision 1.0 and the PICMG CompactPCI Express EXP.0 R1.0 Specification

## Operating Environment

NI PXIe-8360, PCIe-8361, PCIe-8362

Ambient temperature range .....	0 to 55 °C (tested in accordance with IEC-60068-2-1 and IEC-60068-2-2; meets MIL-PRF-28800F Class 3 low temperature limit and MIL-PRF-28800F Class 2 high temperature limit)
Relative humidity range.....	10 to 90%, noncondensing (tested in accordance with IEC-60068-2-56)

Maximum altitude.....	2,000 m
Pollution Degree.....	2
Indoor use only.	

## Storage Environment

NI PXIe-8360

Ambient temperature range .....	-40 to 71 °C (tested in accordance with IEC-60068-2-1 and IEC-60068-2-2; meets MIL-PRF-28800F Class 3 limits)
Relative humidity range.....	5 to 95%, noncondensing (tested in accordance with IEC-60068-2-56)

NI PCIe-8361

Ambient temperature range .....	-20 to 70 °C (tested in accordance with IEC-60068-2-1 and IEC-60068-2-2)
Relative humidity range.....	5 to 95%, noncondensing (tested in accordance with IEC-60068-2-56)

NI PCIe-8362

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

## Shock and Vibration

NI PXIe-8360

Operating.....	30 g peak, half-sine, 11 ms pulse (tested in accordance with IEC-60068-2-27; meets MIL-PRF-28800F Class 2 limits)
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Random Vibration

Operating .....	5 to 500 Hz, 0.3 g <sub>rms</sub>
Nonoperating.....	5 to 500 Hz, 2.4 g <sub>rms</sub> (tested in accordance with IEC-60068-2-64; nonoperating test profile exceeds the requirements of MIL-PRF-28800F, Class 3)

**Note:** For full EMC compliance, operate this device with shielded cabling. In addition, all covers and filler panels must be installed. 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](http://ni.com/certification), search by model number or product line, and click the appropriate link in the Certification column.