
PXle-8267

Getting Started

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Overview

This document explains how to install and configure the PXIe-8267. For more information about configuring, using, and maintaining the PXIe-8267, refer to ni.com.



Note The standard NI warranty does not apply to the PXIe-8267. To view warranty and services information for the PXIe-8267, go to ni.com/info and enter the Info Code raidsupport.



Note The PXIe-8267 requires a chassis with slot cooling capacity ≥ 58 W.

Installation and Configuration

This section explains how to unpack, install, and configure the PXIe-8267 hardware and software.

What You Need to Get Started

The PXIe-8267 kit contains the following items:

- PXIe-8267 module
- PXIe-8267 documentation



Note The device kit does not include driver media. Refer to the [Software/Driver Installation](#) section for information about installing the drivers.

Unpacking



Note 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. Carefully inspect the shipping container and the PXle-8267 for damage.
2. Check for visible damage to the metal work.



Note Never touch the exposed pins of connectors.



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

3. Check to make sure all hardware is undamaged.
If damage appears to have been caused during shipment, file a claim with the carrier. Retain the packing material for possible inspection and/or reshipment.
4. Unpack any other items and documentation from the kit.

Preparing the Environment

Ensure the environment in which you are using the PXle-8267 meets the following specifications.

Temperature

Operating 0 °C to 55 °C^[1] (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.)

Storage^[2] -40 °C to 71 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2; meets MIL-PRF-28800F Class 3 limits.)

Humidity

Operating 10% to 90% noncondensing (Tested in accordance with IEC-60068-2-78.)

Storage	5% to 95% noncondensing (Tested in accordance with IEC-60068-2-78.)
Pollution Degree	2
Maximum altitude	2,000 m (800 mbar)
Indoor use only.	



Note For complete specifications, refer to the **PXIe-8267 Specifications** at ni.com/manuals.



Note For more information about thermal considerations, go to ni.com/info and enter the Info Code raidsupport.

¹ The PXIe-8267 requires a chassis with slot cooling capacity ≥ 58 W. Not all chassis with slot cooling capacity ≥ 58 W can achieve this ambient temperature range. Refer to the [PXI Chassis Manual](#) for specifications to determine the ambient temperature ranges your chassis can achieve.

² Drive utilization and storage temperatures will have an impact on unpowered data retention. Visit ni.com/info and enter the Info Code ssdtemp for more information about the impact of temperature on drive endurance.

Hardware Installation



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



Caution To protect both yourself and the chassis from electrical hazards, leave the chassis off until you finish installing the PXIe-8267.

Attention Pour vous protéger, et protéger le châssis, contre les risques électriques, laissez le châssis éteint tant que vous n'avez pas terminé l'installation du PXIe-8267.

1. Power off your PXI Express chassis, but leave it plugged in while installing the PXIe-8267. The power cord grounds the chassis and protects it from electrical damage while you install the module.
2. Locate an available PXI Express slot in the chassis. Do not install the PXIe-8267 in the controller slot (slot 1 in a PXI Express chassis).
3. Remove or open any doors or covers blocking access to the slot in which you intend to install the PXIe-8267.
4. Touch the metal part of the case to discharge any static electricity that might be on your clothes or body.
5. Make sure the injector/ejector handle is in its downward position. Be sure to remove all connector packaging and protective caps from retaining screws on the module. Align the PXIe-8267 with the card guides on the top and bottom of the selected slot.



Note Do not raise the injector/ejector handle as you insert the PXIe-8267. It will not insert properly unless the handle is in its downward position so that it does not interfere with the injector/ejector rail on the chassis.

6. Hold the handle as you slowly slide the module into the chassis until the handle catches on the injector/ejector rail.
7. Raise the injector/ejector handle until the module firmly seats into the backplane receptacle connectors. The front panel of the PXIe-8267 should be even with the front panel of the chassis.
8. Tighten the bracket-retaining screws on the top and bottom of the front panel to secure the PXIe-8267 to the chassis.
9. Replace or close any doors or covers to the chassis.

LED Indicators

The following table describes the PXIe-8267 front panel LEDs.

LED	Color	Meaning
Pwr/Fault	Off	Power is off

LED	Color	Meaning
Drive 1 through Drive 4	Blinking red	Power is out of spec
	Green	Power is on
	Off ^[1]	No drive activity
	Blinking green	Drive activity
	Green	No drive activity

¹ Drive manufacturers define the optional drive activity signal in different ways. Some manufacturers unassert the activity signal when there is no drive activity, with LEDs off, while others assert the signal, with LEDs on.

Software/Driver Installation

The PXle-8267 does not include interface software to configure the RAID. You must use the Disk Management Utility in Windows to manage the software RAID.



Note The PXle-8267 supports only Windows 10 (64-bit).



Note Refer to the drive manufacturer's website for information regarding monitoring drive temperatures.

No driver is necessary to configure the drives. The Standard Microsoft NVME driver is pre-installed in Windows 10.

RAID Creation

To configure the software RAID on the PXle-8267, complete the following steps.

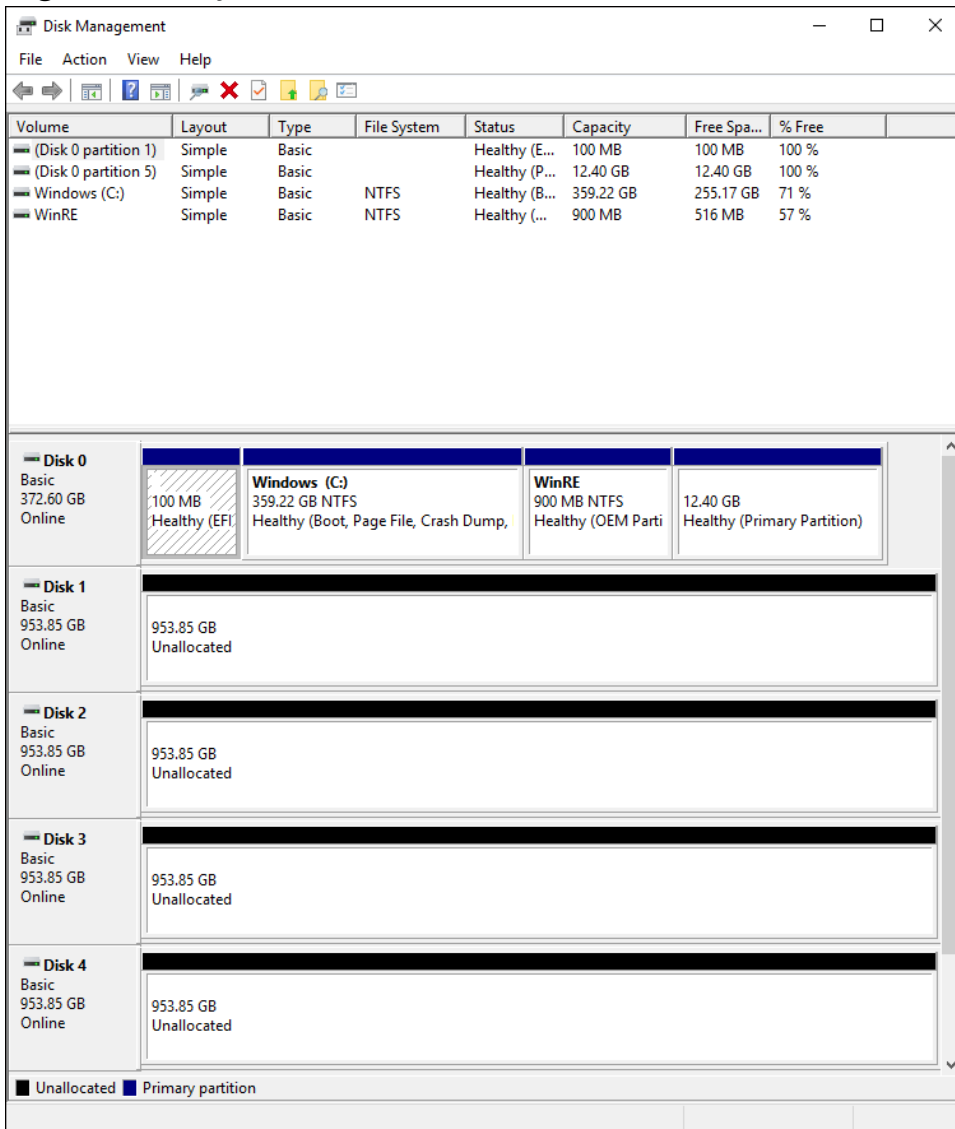


Note Back up your data before you configure the software RAID.



Note In the following steps, the disk drive capacities in the images are examples. You may see different capacities depending on your disk drives.

1. Right-click My Computer and click Manage.
2. Click Disk Management in the left window. You should see four disk drives of the same size in basic mode. If the disks do not have a status of Unallocated, right-click any disk and select Delete Partition.
3. Right-click any disk and select New Striped Volume, then click Next.



4. Click Add until all available disks are moved to the Selected window and click Next.

New Striped Volume [X]

Select Disks
You can select the disks and set the disk size for this volume.

Select the disks you want to use, and then click Add.

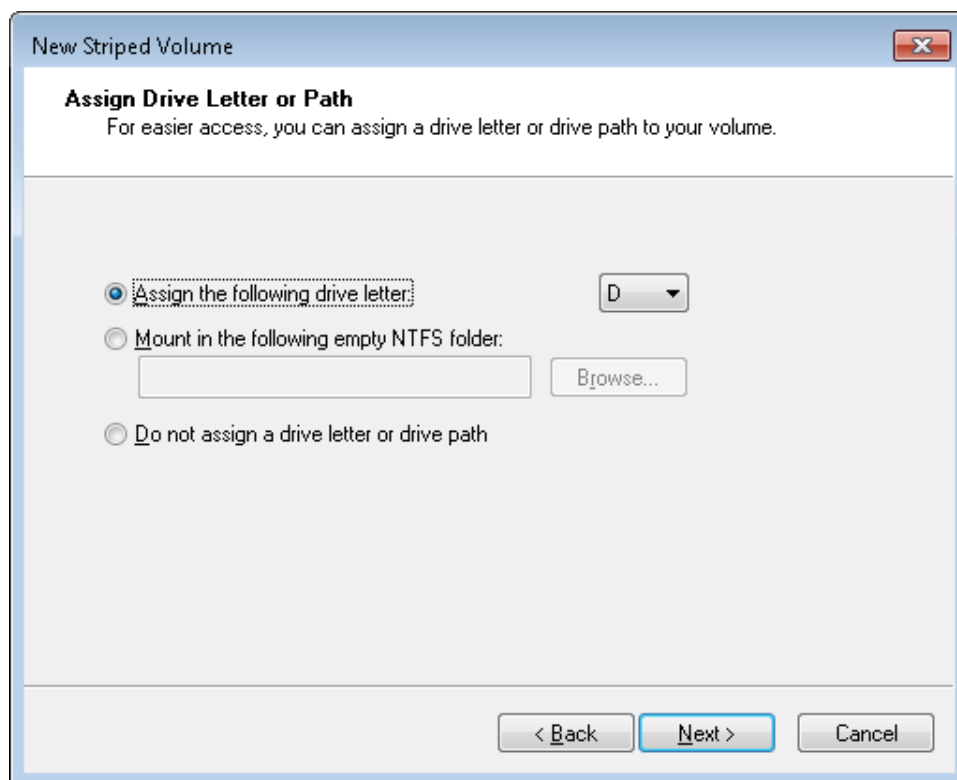
Available:		Selected:
<div style="border: 1px solid black; height: 80px; width: 150px;"></div>	<div>Add ></div> <div>< Remove</div> <div>< Remove All</div>	<div>Disk 1 976745 MB</div> <div>Disk 2 976745 MB</div> <div>Disk 3 976745 MB</div> <div>Disk 4 976745 MB</div>
Total volume size in megabytes (MB):		3906980
Maximum available space in MB:		976745
Select the amount of space in MB:		976745

< Back

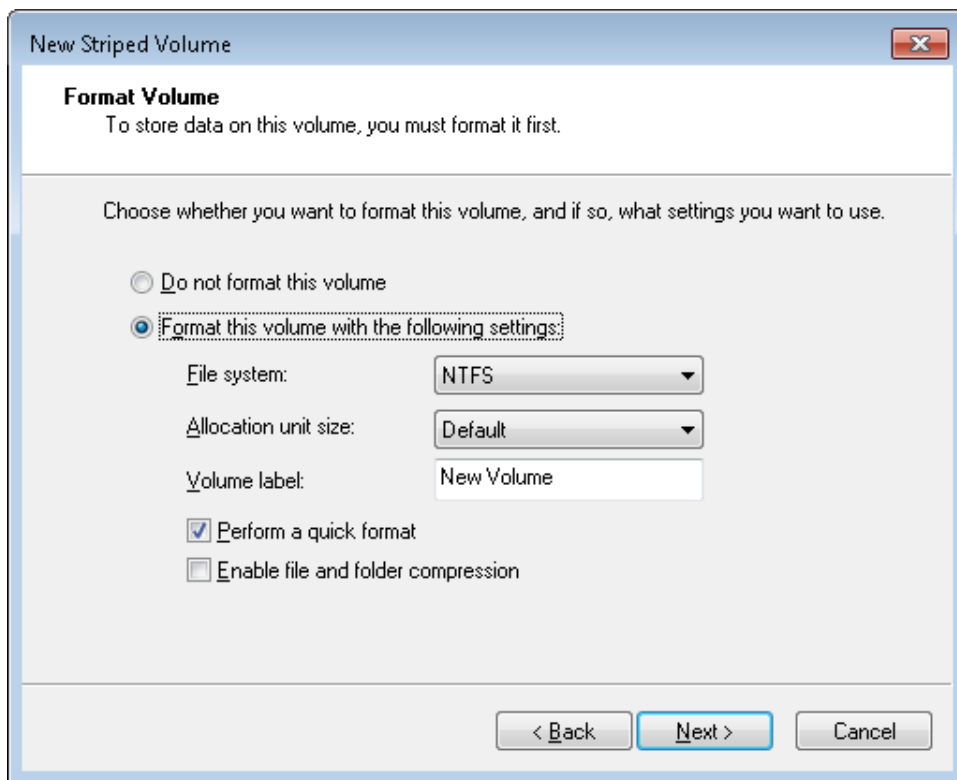
Next >

Cancel

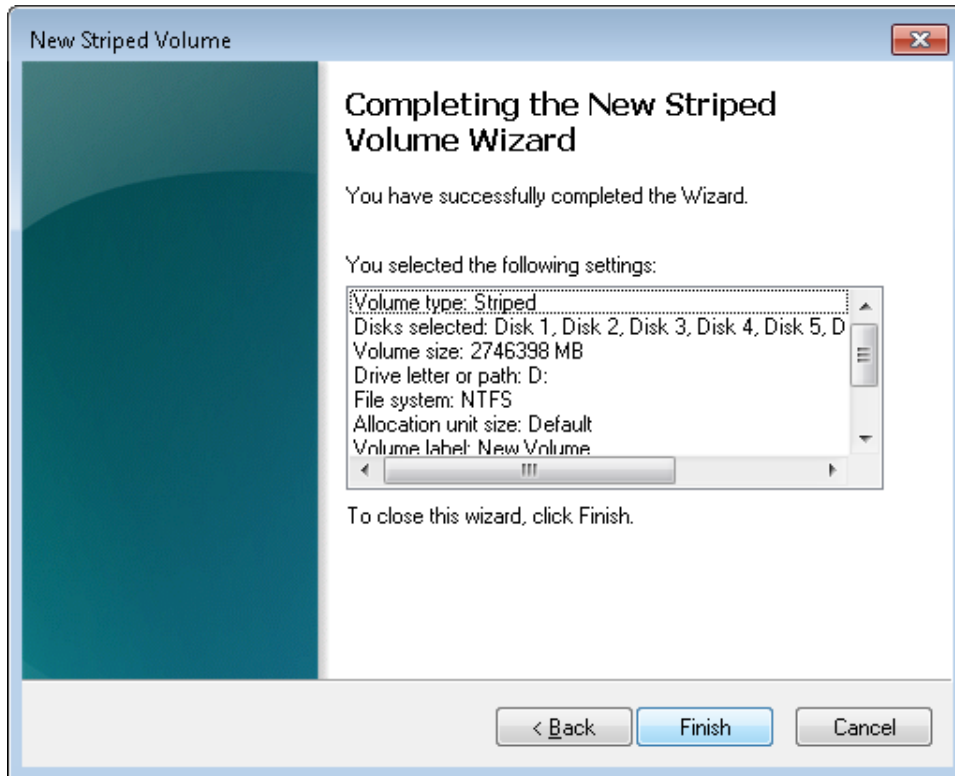
5. Assign a drive letter and click Next.



6. Configure the Format Volume page as shown in the following figure and click Next.



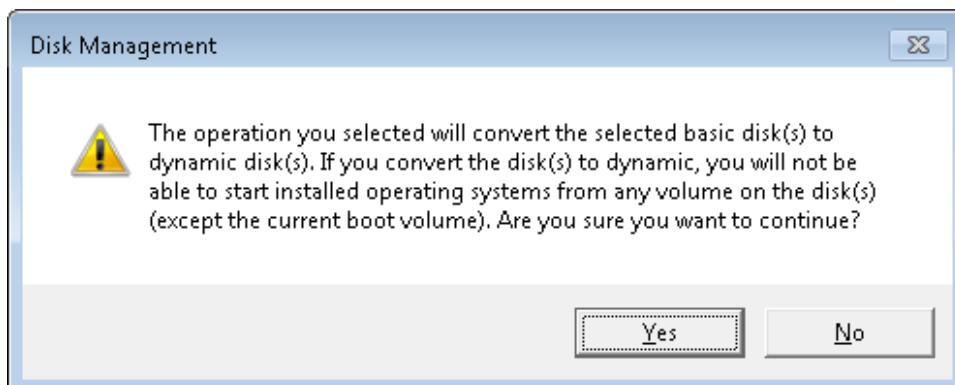
7. Click Finish to close the New Striped Volume Wizard.



8. If the disks were configured in basic mode, click Yes in the Disk Management dialog box to convert them to dynamic mode.



Note You must convert all disks that you want to include in the RAID array to dynamic mode.



Moving the PXIe-8267 to a Different System

Complete the following steps to move your PXIe-8267 to a different system or chassis with a different controller.

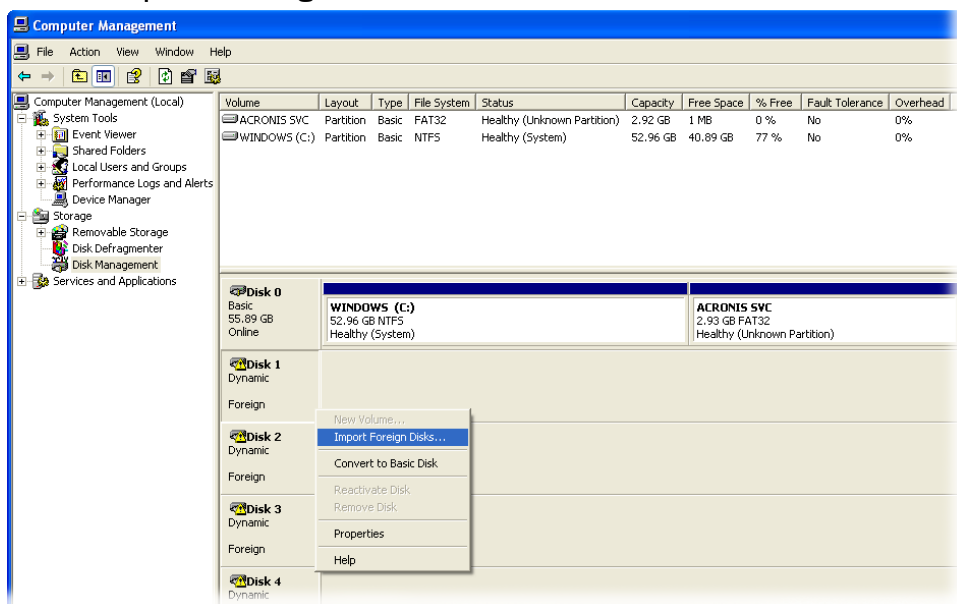


Note The following steps apply only if the PXIe-8267 you are moving to a different system is in software RAID mode.

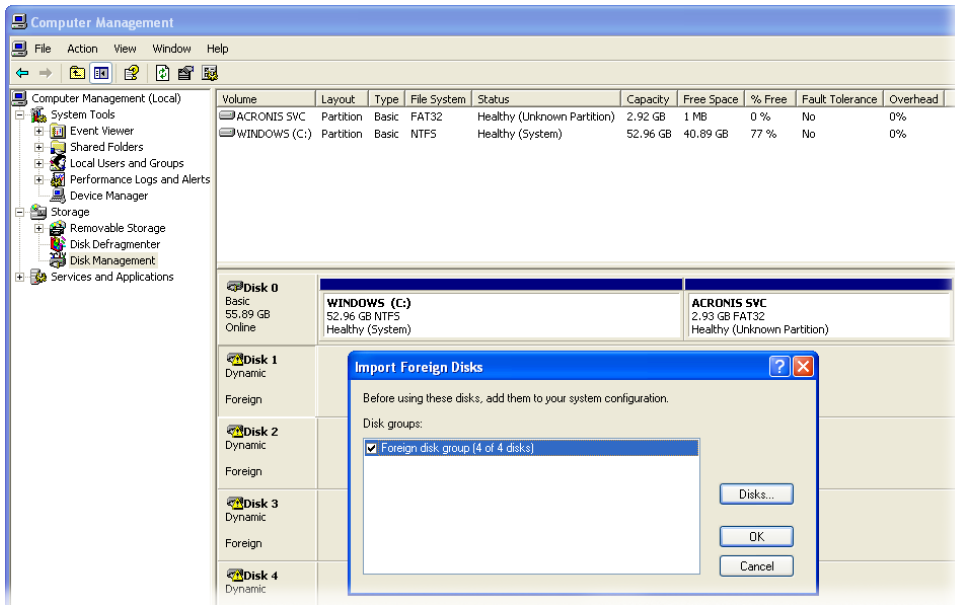


Note To avoid data loss, do not move, swap, or replace the drives.

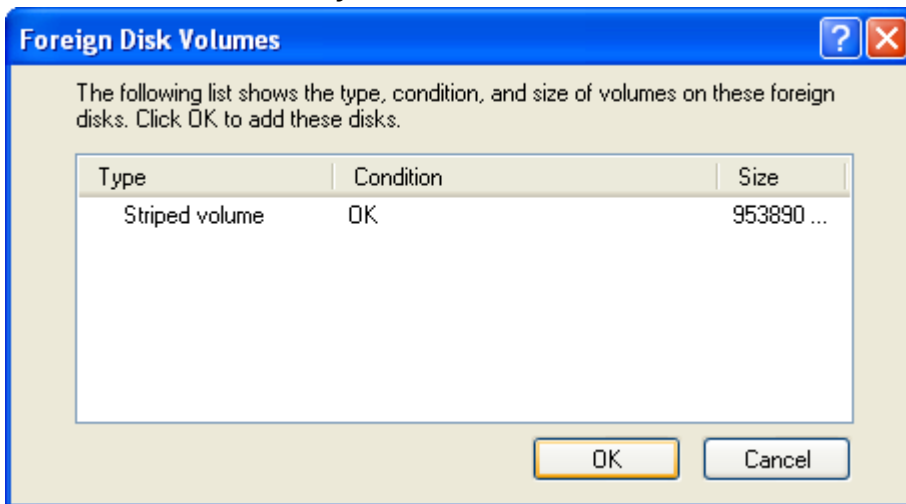
1. When the system boots, go into Disk Management. You will see four dynamic disks with yellow caution icons. Right-click any disk with a caution icon and select Import Foreign Disks.



2. Be sure the Foreign disk group (4 of 4 disks) checkbox is enabled and click OK.



3. You may see the following dialog box if a RAID volume was present on the PXIe-8267 before you moved it to the new system. Click OK to allow the new system to import the RAID volume. The initial data is preserved and will be readable in the new system.



4. Your RAID drive is now ready for use in the new system.

Optimizing Streaming Performance



Note NI recommends periodically checking drive life and using software to monitor the drive for errors, thermal events, TBW, and so on. For more information, go to ni.com/info and enter the Info Code raidsupport.



Note If the PXIe-8267 throughput is underperforming, complete the following steps to optimize the drives manually.

1. Back up your data before performing this operation.
2. Delete the striped array and individually partition, format, and assign a letter to the drives.
3. In the Windows taskbar, search for the Defragment and Optimize Drives tool and optimize the drives.
4. When the operation completes, recreate the striped array.

NI Services

Visit ni.com/support to find support resources including documentation, downloads, and troubleshooting and application development self-help such as tutorials and examples.

Visit ni.com/services to learn about NI service offerings such as calibration options, repair, and replacement.

Visit ni.com/register to register your NI product. Product registration facilitates technical support and ensures that you receive important information updates from NI.

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