

NOTE TO USERS

Maintain Forced-Air Cooling

This document contains important cooling information for the PXI/PXIe module or PCI device contained in this kit.



Note Inadequate air circulation could cause the temperature inside the chassis or case to rise above the maximum recommended operating temperature for your device, potentially causing thermal shutdown. If thermal shutdown occurs, you will receive an error message. Refer to the help file for your device for more information.

Cleaning

Periodic cleaning increases reliability. Clean the device, the chassis, and any fan filters on a regular basis to prevent air circulation path blockage. Cleaning frequency depends on the amount of use and the operating environment.

For specific information about cleaning procedures and other recommended maintenance, refer to the module or device specifications, the chassis user documentation, and the help file for your hardware.

Airflow

Airflow requirements vary based on the type of device: PXI/PXIe or PCI.

PXI/PXIe Modules

Use the following guidelines to maintain optimal forced-air cooling for PXI/PXIe modules.

- Install all chassis covers and filler panels after installing your module. Missing filler panels disrupt the necessary air circulation in the chassis.
- Allow plenty of space between the chassis fan intake and exhaust vents, and walls or other obstructions. Blocking the chassis fans affects the air flow needed for cooling.

- Set all chassis fans to either the high or auto fan speed setting, if these settings are applicable to your chassis. Do *not* set the fan speed to low or turn the fan off.
- (Optional) Install slot blockers to maximize air flow. NI recommends using the PXI Chassis Slot Blocker Kit, part number 778678-01.

Refer to the chassis documentation for more information about air circulation paths, fan settings, and space allowances.

Airflow for PCI Devices

Use the following guidelines to maintain optimal forced-air cooling for PCI devices.

- Install all case covers and filler panels after installing the PCI device. Missing filler panels disrupt the necessary air circulation in the case.
- Allow plenty of space between the chassis fan intake and exhaust vents, and walls or other obstructions. Blocking the chassis fans affects the air flow needed for cooling.
- Maintain proper airflow. The method you use to ensure proper airflow depends on whether the PCI device has an onboard fan.

You can determine whether a PCI device has an onboard fan by the type of shield installed on the device.

Devices with an Onboard Fan

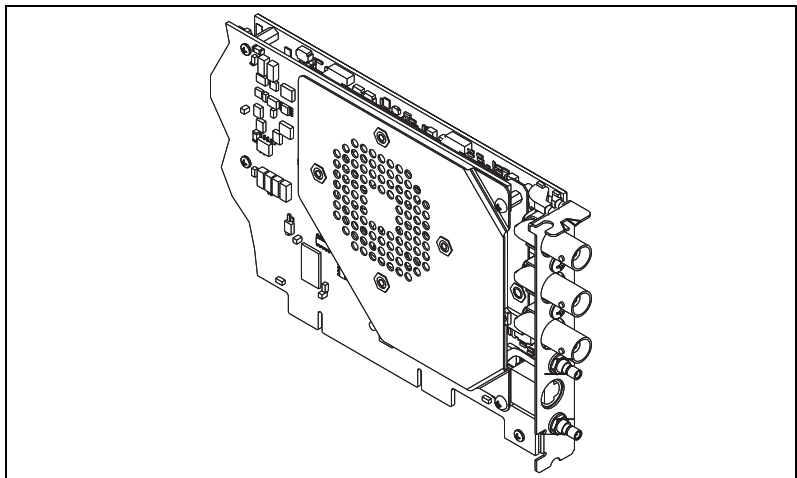


Figure 1. PCI Device with Onboard Fan

- Ensure that the onboard fan is not obstructed.
- Leave the slot adjacent to the fan side of the device empty or use lower-profile cards in the slot adjacent to the fan side.

Devices Without an Onboard Fan

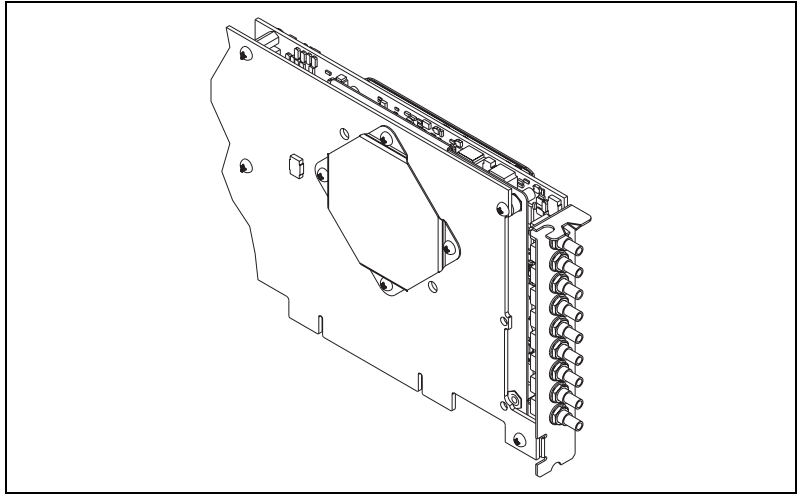


Figure 2. PCI Device without Onboard Fan

- Ensure that the PC chassis has active cooling.
- (Recommended) Leave the slot adjacent to the PCI device empty or use lower-profile cards in the adjacent slot.

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