APEX WAVES PCIe-8255 2-Port Reconfigurable Digital I-O Frame Grabber Device User Manual

Contents

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Product Information

The NI PCIe-8255 is a device used in conjunction with the NI Vision I/O Terminal Block and Prototyping Accessory. The front panel labels on the accessory have been updated to NI 1450 I/O Terminal Block and Prototyping Accessory. However, there are no functional differences between the two versions.

Product Usage Instructions

1. To power the isolated outputs on the NI 8255R device while using the NI 1450 I/O Accessory, follow these steps:
    - Connect the NI 1450 I/O Accessory to an external power supply.
    - Use a 37-pin to 44-pin cable to connect the NI 1450 I/O Accessory to the NI 8255R.
    - The NI 1450 I/O Accessory powers the NI 8255R via the 44-pin D-SUB connector.
2. The Viso and Ciso screw terminals on the NI 1450 I/O Accessory are used to provide Viso (isolated power) and Ciso (common-mode signal) to the NI 8255R. Connect Viso and Ciso to the respective screw terminals on the accessory.
3. The orange ISO LED on the front panel of the NI 8255R device and the ISO PWR OUT LED on the front panel of the NI 1450 I/O Accessory will illuminate when Viso and Ciso are properly connected to an external power supply.
4. Refer to the NI PCIe-8255R Quick Start Guide for more detailed information on powering the NI 8255R.

Front Panel Illustration

Note: The NI 1450 I/O Accessory is powered by the 44-pin D-SUB connector located on the CVS-1450 devices and the NI 8254R device. Do not connect an external power supply to the Viso and Ciso screw terminals on the accessory when using these devices.

NOTE TO USERS

Update to NI Vision I/O Terminal Block and Prototyping Accessory Front Panel

National Instruments is updating the front panel labels on the NI Vision I/O Terminal Block and Prototyping Accessory. You may receive a version of the accessory that is labeled NI 1450 I/O Terminal Block and Prototyping Accessory. There are no functional differences between the two versions. This note describes how to use the NI PCIe-8255R with the version of the accessory labeled NI 1450 I/O Terminal Block and Prototyping Accessory.

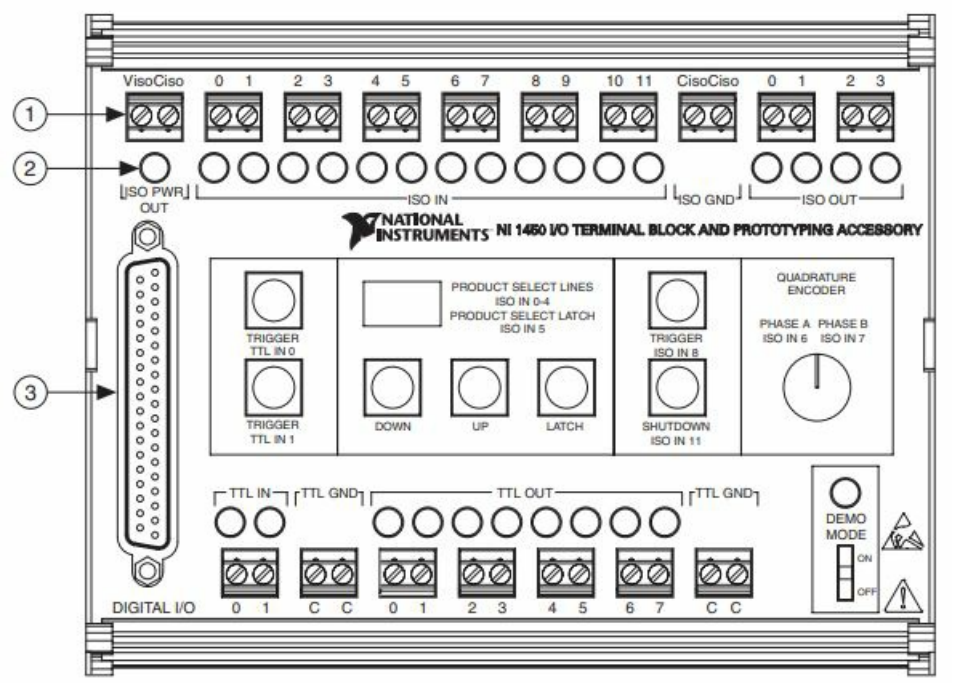
Powering the Isolated Outputs on the NI 8255R

- To wire isolated output power to the NI 8255R while using the NI 1450 I/O Accessory, you must connect the NI 1450 I/O Accessory to an external power supply, and use a 37-pin to 44-pin cable to connect the NI 1450 I/O Accessory to the NI 8255R. The NI 1450 I/O Accessory powers the NI 8255R via the 44-pin D-SUB connector.
- The 44-pin D-SUB connector on the NI 8255R provides access to Viso and Ciso for powering the isolated outputs. The Viso terminal provides the isolated power (5 to 30 VDC) for the NI 8255R device. The Ciso terminal provides the common-mode signal for the
- NI 8255R device. Provide Viso and Ciso to the NI 8255R via the Viso and Ciso screw terminals on the NI 1450 I/O Accessory.
- The orange ISO LED on the front panel of the NI 8255R device and the ISO PWR OUT LED on the front panel of the NI 1450 I/O Accessory will illuminate when Viso and Ciso are properly connected to an external power supply.
- Refer to the NI PCIe-8255R Quick Start Guide for more information about powering the NI 8255R. The following illustration shows the front panel of the NI 1450 I/O Accessory.

Note: CVS-1450 devices and the NI 8254R device power the NI 1450 I/O Accessory via the 44-pin D-SUB connector located on the devices. The power connector on CVS-1450 devices and the NI 8254R device provides Viso and Ciso. With these devices, do not connect an external power supply to the Viso and Ciso screw terminals on the NI 1450 I/O Accessory.

Accessory Front Panel

Figure 1: NI 1450 I/O Terminal Block and Prototyping Accessory Front Panel



1. Viso and Ciso Screw Terminals
2. LED that shows if ISO PWR is active
3. 37-pin D-SUB connector to connect to the CVS-1450, NI PCI-8254, or NI PCIe-8255R device

More Information

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