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PCIe-8255

### **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 functionality 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  $V_{\rm iso}$  and  $C_{\rm iso}$  for powering the isolated outputs. The  $V_{\rm iso}$  terminal provides the isolated power (5 to 30 VDC) for the NI 8255R device. The  $C_{\rm iso}$  terminal provides the common-mode signal for the NI 8255R device. Provide  $V_{\rm iso}$  and  $C_{\rm iso}$  to the NI 8255R via the  $V_{\rm iso}$  and  $C_{\rm iso}$  screw terminals on the NI 1450 I/O Accessory.

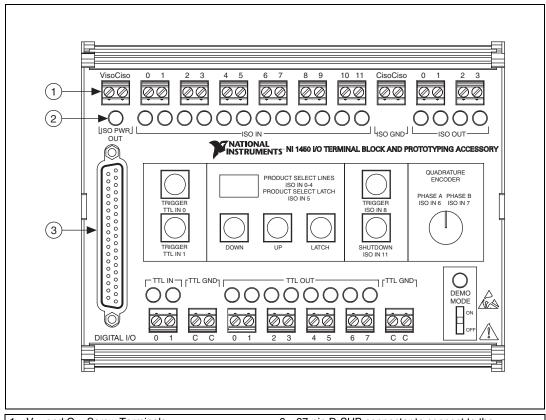
The orange **ISO** LED on the front panel of the NI 8255R device and the **ISO PWR OUT** LED on the front panel of the NI 1450 I/O Accessory will illuminate when  $V_{iso}$  and  $C_{iso}$  are properly connected to an external power supply.

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  $V_{\rm iso}$  and  $C_{\rm iso}$ . With these devices, do *not* connect an external power supply to the  $V_{\rm iso}$  and  $C_{\rm iso}$  screw terminals on the NI 1450 I/O Accessory.



- V<sub>iso</sub> and C<sub>iso</sub> Screw Terminals
  LED that shows if ISO PWR is active
- 3 37-pin D-SUB connector to connect to the CVS-1450, NI PCI-8254R, or NI PCIe-8255R device

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

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