

USER GUIDE

NI 2807

Connector Kit for NI SwitchBlock

This document describes the printed circuit layout of your custom NI SwitchBlock accessory.



Caution The NI 2807 must be installed inside a suitable enclosure prior to use. Hazardous voltages may be present.



Caution National Instruments makes no product safety, electromagnetic compatibility (EMC), or CE marking compliance claims for NI accessory components. The end-product supplier is responsible for conformity to any and all compliance requirements.

Visit ni.com/instruments for information on other switching solutions.

Verifying the Kit Contents

The NI 2807 connector kit includes the following items:

- ☐ One 96-pin SCSI connector or one 160-pin DIN connector
- ☐ Grounding bar to connect an NI SwitchBlock cable to your custom PCB
 - SCSI grounding bar with two 4-40 PEM nuts, two 4-40 phillips flat-head screws, and two shims for mounting and one male/female standoff.
 - DIN grounding bar with two 4-40 phillips pan-head screws for mounting

What You Need to Get Started

To use the NI 2807, you need the following items:

- ☐ NI SwitchBlock relay cards, cables, and carrier(s)
- ☐ One NI 2807 kit for each NI SwitchBlock relay card you plan to attach to your custom PCB
- ☐ One 500 Ω $\pm 20\%$ (or better) resistor per relay card



Note The resistor can be surface mount (SM) or through hole (TH) of any size, 1/10 W minimum, depending on how you design your custom PCB. The resistor must make a connection between pins 48 and 96 on the SCSI connector (between pins A32 and B32 for the DIN connector).

- ☐ Connectors and components for other instruments and switches you intend to attach to your custom PCB

Connecting Signals

Refer to each relay card’s front panel documentation for signal connection information. The pin numbers for the SCSI and DIN connectors on each card's front panel match those of the corresponding connector on your custom PCB.

The following figures show a SCSI and DIN connector. Figure 1 shows a SCSI connector.

Figure 1. SCSI connector

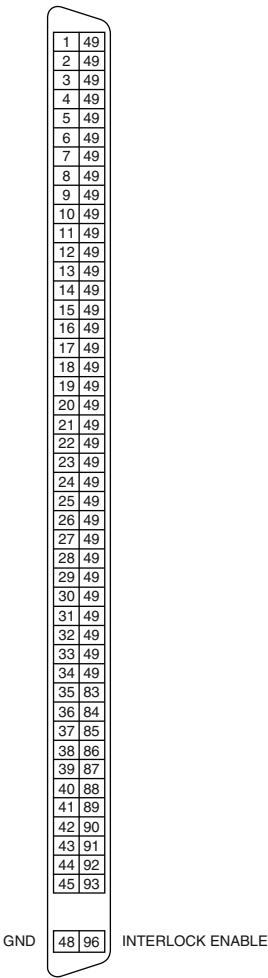
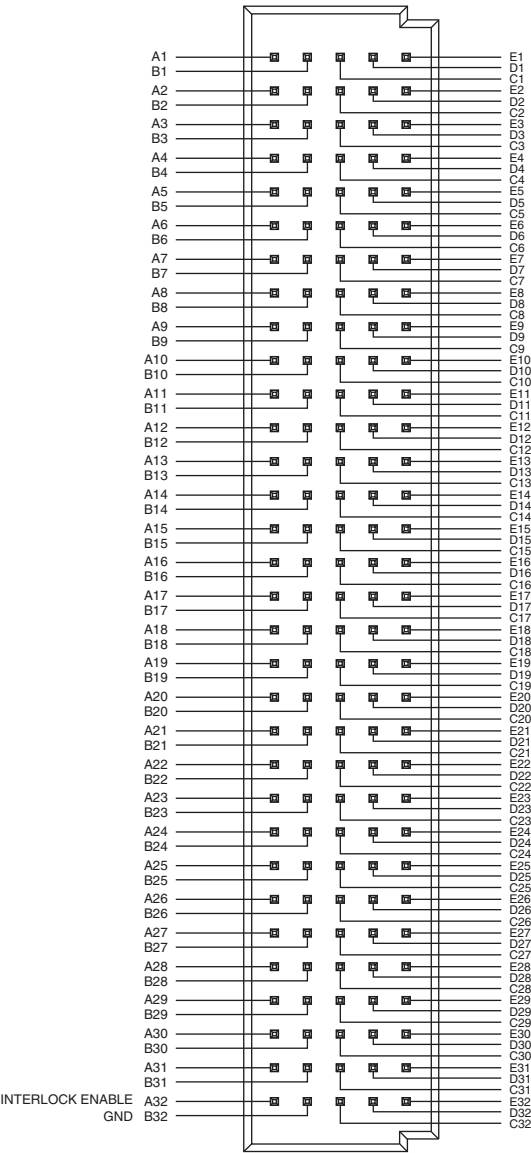


Figure 2 shows a DIN connector.

Figure 2. DIN connector



Refer to the following images for the appropriate PCB layout for your given connector.

Figure 3. PCB layout for DIN connector

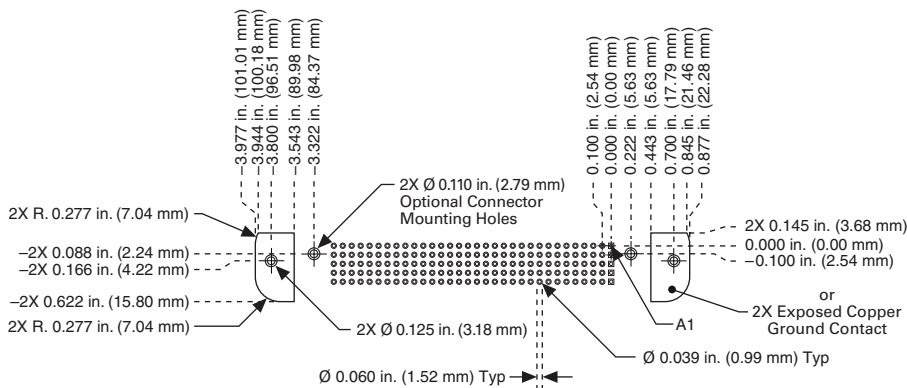


Figure 4. PCB layout for SCSI connector

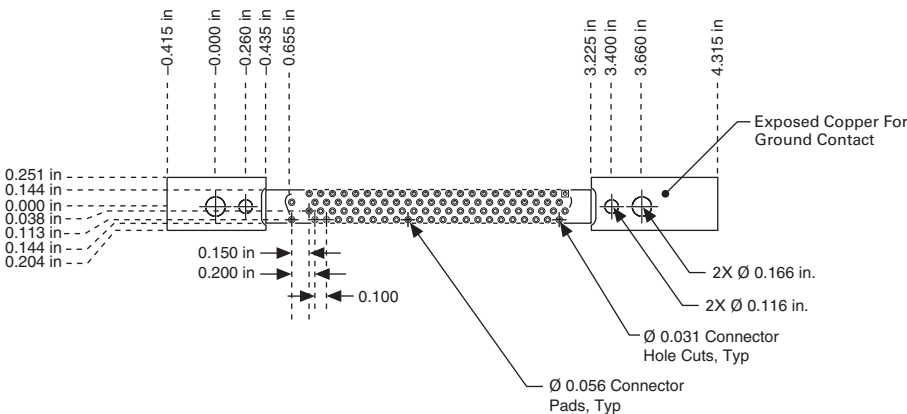
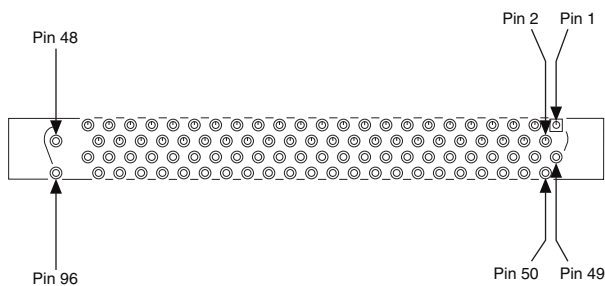


Figure 5. Pins for SCSI connector



Refer to the following images for the connector assemblies for your given connector.

Figure 6. DIN connector assembly

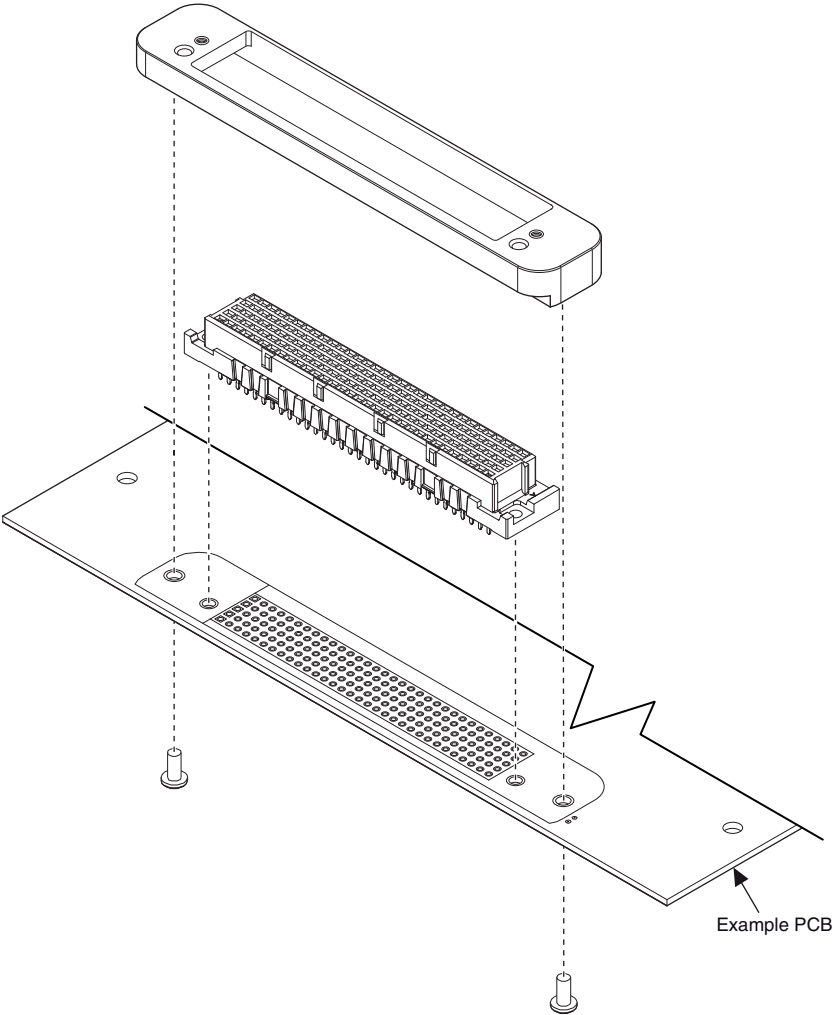
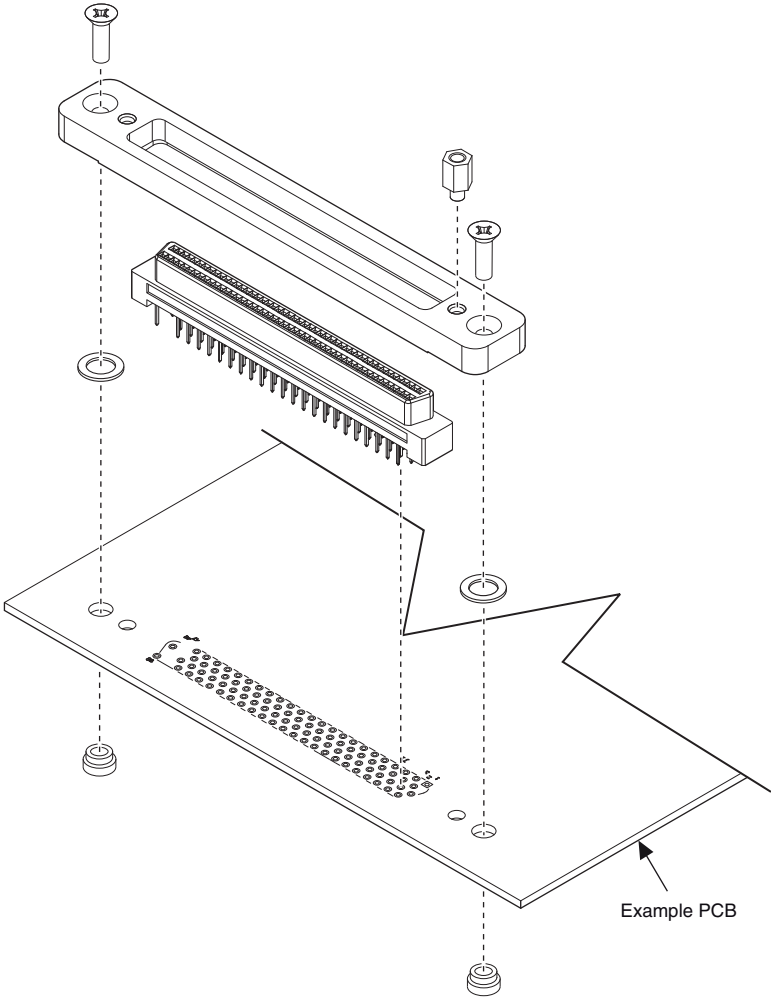


Figure 7. SCSI connector assembly



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