INSTALLATION INSTRUCTIONS
NI SHC68-C68-D5 Cable

このドキュメントには、日本語ページも含まれています。

This guide describes how to connect and use the National Instruments SHC68-C68-D5 cable, which has a maximum voltage rating of 30 VDC CAT I. Use this cable to connect the NI PXI/PXIe-2515 (NI 2515) switch module to a supported NI high-speed DIO device. Refer to the *NI Switches Help* for a list of supported NI high-speed DIO devices.

Caution Use only the NI SHC68-C68-D5 cable to connect the supported NI high-speed DIO device to the NI 2515. The cable translates the pinout of the supported NI high-speed DIO device to the *HSDIO* connector on the NI 2515 so that the pinout of the *DUT* connector on the NI 2515 matches that of the supported NI high-speed DIO device.

Contents

Conventions

The following conventions are used in this guide:

» The **»** symbol leads you through nested menu items and dialog box options to a final action. The sequence **File»Page Setup»Options** directs you to pull down the **File** menu, select the **Page Setup** item, and select **Options** from the last dialog box.

This icon denotes a note, which alerts you to important information.

This icon denotes a caution, which advises you of precautions to take to avoid injury, data loss, or a system crash.

italic Italic text denotes variables, emphasis, a cross-reference, or an introduction to a key concept. Italic text also denotes text that is a placeholder for a word or value that you must supply.

`monospace` Text in this font denotes text or characters that you should enter from the keyboard, sections of code, programming examples, and syntax examples. This font is also used for the proper names of disk drives, paths, directories, programs, subprograms, subroutines, device names, functions, operations, variables, filenames, and extensions.

NATIONAL INSTRUMENTS

What You Need to Get Started

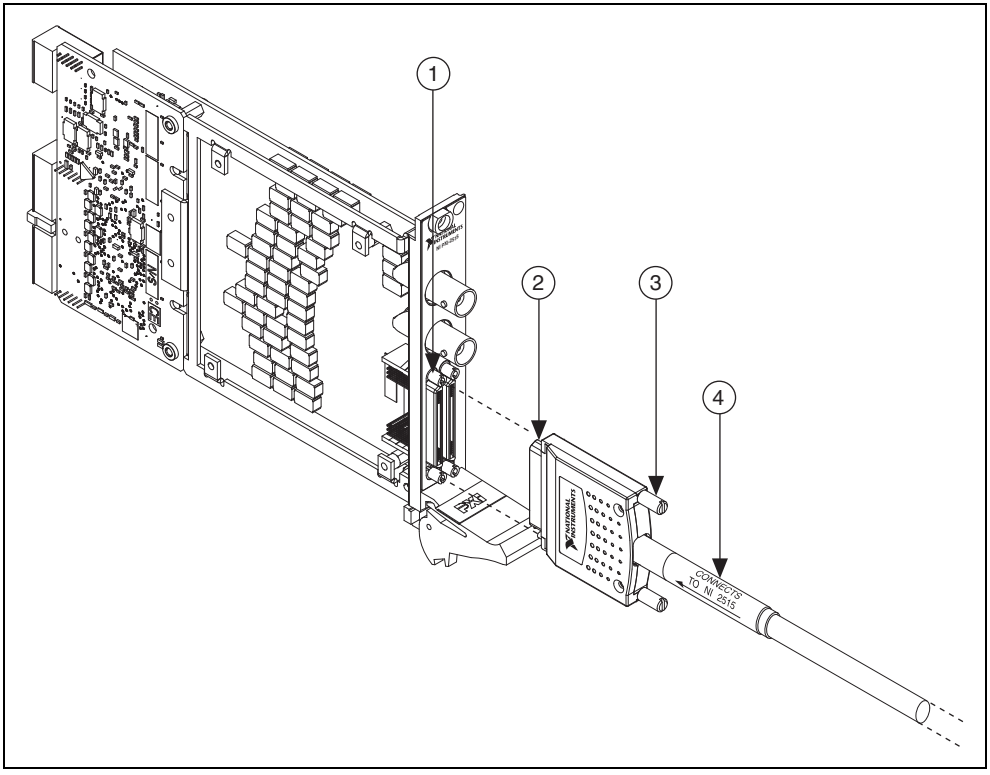
To use the cable, you need the following items:

- ❑ NI SHC68-C68-D5 cable
- ❑ NI 2515 switch module and documentation

Getting Started with the NI SHC68-C68-D5 Cable

Complete the following steps to connect the cable to the switch module and your application. Refer to Figures 1 and 2 for illustrations of the cable, and refer to Figure 3 for an illustration of the connector.

1. Connect the cable connector labeled *CONNECTS TO NI 2515* to the *HSDIO* connector on the NI 2515 module as shown in Figure 1.



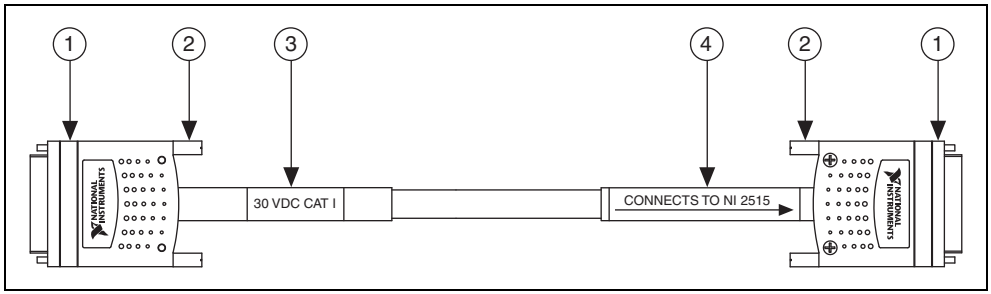
1	NI 2515 *HSDIO* Connector	3	Thumbscrews
2	NI SHC68-C68-D5 Connector	4	*CONNECTS TO NI 2515* Label

Figure 1. Connecting the Cable to the NI 2515

Note NI recommends placing your supported NI high-speed DIO device in the chassis slot immediately to the left of the NI 2515. Use caution when inserting or removing a device immediately to the left of the NI 2515 when the NI SHC68-C68-D5 cable is connected to the NI 2515, as the cable connector may overlap slightly into the space of that slot.

2. Tighten the thumbscrews on the cable.

3. Connect the other end of the cable to your supported NI high-speed DIO device. Refer to Table 1 in the *Cable Configuration* section to determine how to connect signals to your application.



1	NI SHC68-C68-D5 Connectors	3	Connects to Supported NI High-Speed DIO Device
2	Thumbscrews	4	*CONNECTS TO NI 2515* Label

Figure 2. NI SHC68-C68-D5 Cable

4. Tighten the thumbscrews on the cable.
5. If you have not already done so, connect the NI 2515 to the rest of your system. Refer to the *NI Switches Help* for more information about connecting the NI 2515 to your system.

Cable Configuration

Connectors

The cable connects two 68-position male VHDCI connectors. The connector labeled *CONNECTS TO NI 2515* provides connection to the switch module. The second connector provides connection to a supported NI high-speed DIO device. Figure 3 shows the pinout for the connectors.

Use the pinout and the pin assignments listed in Table 1 to determine how to connect signals to your application using the NI SHC68-C68-D5 cable.

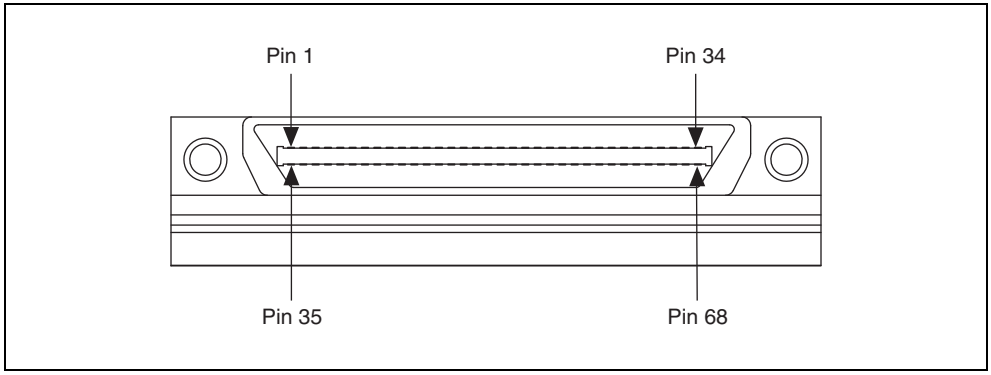


Figure 3. NI SHC68-C68-D5 Mating Connector

Table 1. Pin Assignment for NI SHC68-C68-D5 Cable*

NI SHC68-C68-D5 Connector Pin Number (Supported NI High-Speed DIO Device Side)	NI 2515 Signal	NI SHC68-C68-D5 Connector Pin Number (NI 2515 Side)
65	ch0	38
31	ch1	4
63	ch2	40
29	ch3	6
61	ch4	42
27	ch5	8
59	ch6	44
25	ch7	10
57	ch8	46
23	ch9	12
55	ch10	48
21	ch11	14
53	ch12	50
19	ch13	16
51	ch14	52
17	ch15	18
49	ch16	54
15	ch17	20
47	ch18	56
13	ch19	22
45	ch20	58
11	ch21	24
43	ch22	60
9	ch23	26
41	ch24	62
7	ch25	28
39	ch26	64
5	ch27	30
37	ch28	66

Table 1. Pin Assignment for NI SHC68-C68-D5 Cable* (Continued)

NI SHC68-C68-D5 Connector Pin Number (Supported NI High-Speed DIO Device Side)	NI 2515 Signal	NI SHC68-C68-D5 Connector Pin Number (NI 2515 Side)
3	ch29	32
35	ch30	68
1	ch31	34
52	ctrl0	51
26	ctrl1	9
64	ctrl2	39
30	ctrl3	5
33	ctrl4	2
67	ctrl5	36
8, 60	RESERVED†	27, 43
2, 4, 6, 10, 12, 14, 16, 18, 20, 22, 24, 28, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 54, 56, 58, 62, 66, 68	GND	1, 3, 7, 11, 13, 15, 17, 19, 21, 23, 25, 29, 31, 33, 35, 37, 41, 45, 47, 49, 53, 55, 57, 59, 61, 63, 65, 67

* Refer to the *NI Switches Help* for a complete listing of channel names and pinouts.

† RESERVED signal is reserved by the NI 2515 for future use.

Specifications

Caution Do not exceed the maximum voltage for your supported NI high-speed DIO device. Refer to `ni.com/manuals` for the specifications document for your NI high-speed DIO device.

Maximum voltage .....30 VDC CAT I

Maximum current .....300 mA per pin

Weight .....199 g (7 oz)

Environment

Operating temperature .....0 °C to 55 °C

Storage temperature .....–20 °C to 70 °C

Relative humidity .....5% to 85%, noncondensing

Pollution Degree 2

Maximum altitude .....2,000 m

Indoor use only.

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