
SCXI-1351 Terminal Block

This guide describes how to install the SCXI-1351 one-slot cable extender in an SCXI system.

Introduction

With the SCXI-1351 one-slot cable extender, you can extend the pinout from your DAQ board to multiple modules. You can also use the SCXI-1351 with an NB5 or NB6 cable to connect your SCXI module to a DAQ board that has a 100-pin I/O connector.

The SCXI-1351 one-slot cable extender consists of a mounting bracket with a short piece of 50-conductor ribbon cable and three connectors. Attached to the mounting bracket is a 50-pin female mounting bracket connector that connects to the rear signal connector of the module. At the end of the ribbon cable is a female rear connector that connects to a male breakout connector that must be in the rear connector space of the slot to the left. The SCXI-1351 also has a male breakout connector on the ribbon cable for connecting to a feedthrough panel or to more cable extenders.

When you use the SCXI-1351 with an NB5 or NB6 cable to connect an SCXI module to a DAQ board, the breakout connector connects to the NB5 or NB6 cable. You can use the rear female connector to connect to additional SCXI-1351s or to a feedthrough panel.

What You Need To Get Started

- SCXI-1351 one-slot cable extender
- Two small screws
- SCXI-1351 One-Slot Cable Extender Installation Guide*
- An SCXI chassis
- One or more SCXI modules
- A computer
- A DAQ board
- A small flathead screwdriver

Installation Procedures

Installing the SCXI-1351 as a Cable Extender

Note: *The SCXI-1351 is normally used as a cable extender only with custom SCXI-1181 modules. You do not need to use the SCXI-1351 with standard SCXI modules.*

Perform the following steps to install the SCXI-1351:

1. Make sure that the computer and the SCXI chassis are turned off.
2. Install the cable assembly (such as an SCXI-1340) that you want to extend in the rear connector space of the slot to the left of where you want to install the SCXI-1351.
3. Install the SCXI module that you want cabled to the SCXI-1351.
4. Connect the rear connector of the SCXI-1351 to the breakout connector of the cable you installed in step 2.
5. Plug the mounting bracket connector into the module rear signal connector. Make sure the alignment tab on the bracket enters the upper board guide of the chassis.
6. Screw the mounting bracket to the threaded strips in the rear of the chassis.

Check the installation.

You can add more SCXI-1351s to the right. Figure 1 shows how to position the SCXI-1351 to extend an SCXI-1340 cable assembly.

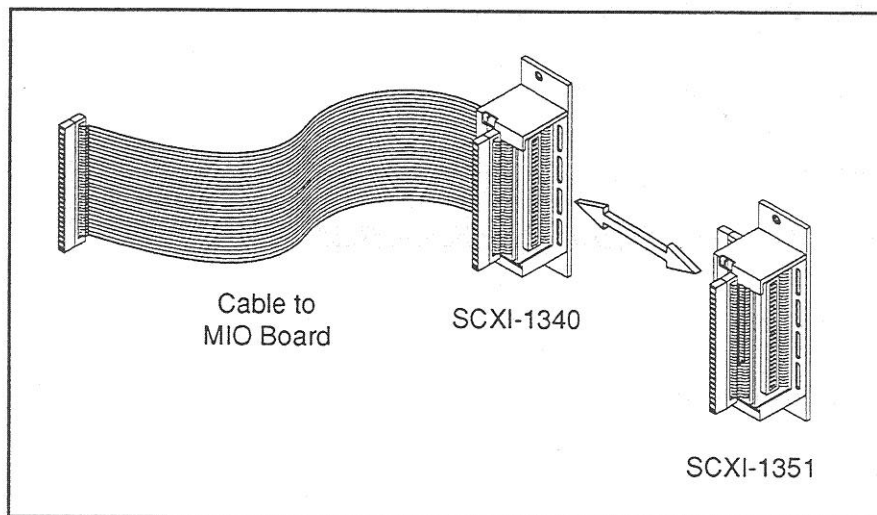


Figure 1. SCXI-1351 and SCXI-1340

Installing the SCXI-1351 as a Cable Extender with an NB5 or NB6 Cable

If the cable assembly that you want to extend is an NB5 or NB6 cable, the procedure is slightly different.

1. Make sure that the computer and the SCXI chassis are turned off.
2. Install the cable assembly, the NB5 or NB6 and the SCXI-1351, in the rear connector space of the slot to the *right* of where you want to install the cable extender SCXI-1351.
3. Install the SCXI module that you want cabled to the cable extender SCXI-1351.
4. Connect the *breakout* connector of the cable extender SCXI-1351 to the *female rear* connector of the SCXI-1351 that you installed in Step 2.
5. Plug the mounting bracket connector into the module rear signal connector. Make sure the alignment tab on the bracket enters the upper board guide of the chassis.
6. Screw the mounting bracket to the threaded strips in the rear of the chassis.

Check the installation.

You can add more SCXI-1351s to the left.

Figure 2 illustrates the elements of an SCXI-1351 and NB5 or NB6 cable installation.

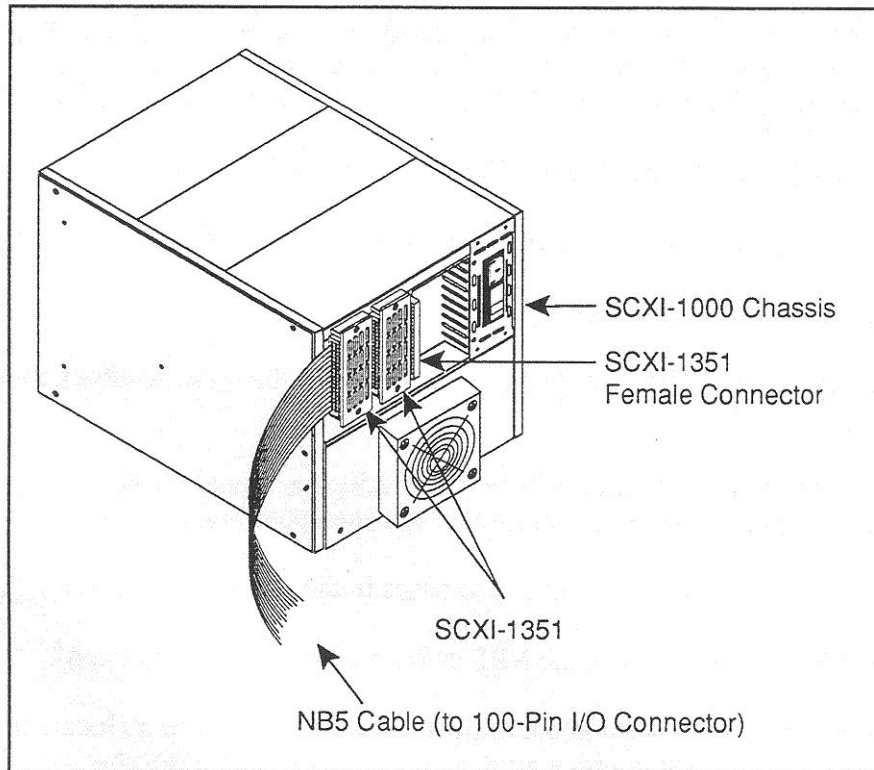


Figure 2. SCXI-1351 and NB5 Cable

NB5 or NB6 Cable Installation

An NB5 or NB6 cable has two 50-pin connectors. One is marked *Positions 1-50* and the other is marked *Positions 51-100*. The following table shows which DAQ boards and SCXI modules you can cable together using the SCXI-1351 and the NB5 or NB6 cable. The table also shows which connector you connect to the SCXI-1351. If you have a newly released module that is not on this list, contact National Instruments for information on your cable needs.

SCXI Module	AT-MIO-64F-5 Board	AT-MIO-16D Board	PC-DIO-96 Board	NB-DIO-96 Board
SCXI-1100	positions 1-50	positions 1-50	no	no
SCXI-1120	positions 1-50	positions 1-50	no	no
SCXI-1121	positions 1-50	positions 1-50	no	no
SCXI-1140	positions 1-50	positions 1-50	no	no
SCXI-1160	positions 1-50	positions 1-50	positions 1-50	positions 1-50
SCXI-1161	positions 1-50	positions 1-50	positions 1-50	positions 1-50
SCXI-1162	positions 1-50	either	either	either
SCXI-1163	positions 1-50	either	either	either
SCXI-1181	either	either	either	either

Notes: *Use the NB5 cable with the AT-MIO-64F-5, AT-MIO-16D or PC-DIO-96 boards. Use the NB6 cable with the NB-DIO-96 board.*

SCXI-1162 and SCXI-1163 users operating in serial mode should use positions 1-50 of the NB5 cable for all DAQ boards. When you are operating in parallel mode, use positions 51-100 with the AT-MIO-16D, or use either position with DIO boards.

Perform the following steps to install the SCXI-1351 and NB5 or NB6 cable:

1. Make sure that the computer and the SCXI chassis are turned off.
2. Install the SCXI module in the chassis.
3. Connect the appropriate NB5 or NB6 cable connector to the male breakout connector on the SCXI-1351.
4. Plug the mounting bracket connector into the module rear signal connector (see Figure 3). Make sure the alignment tab on the bracket enters the upper board guide of the chassis.
5. Screw the mounting bracket to the threaded strips in the rear of the chassis.
6. Connect the 100-pin connector of the NB5 or NB6 cable to the DAQ board.

After step 1, the order of these steps is not critical; however, it is easier to locate the correct position for the mounting bracket with a module already installed in the chassis. If you are attaching a cable to the female connector, installation is easiest if you attach the second cable before installing the SCXI-1351.

Figure 3 shows the SCXI-1351 cable installation in detail.

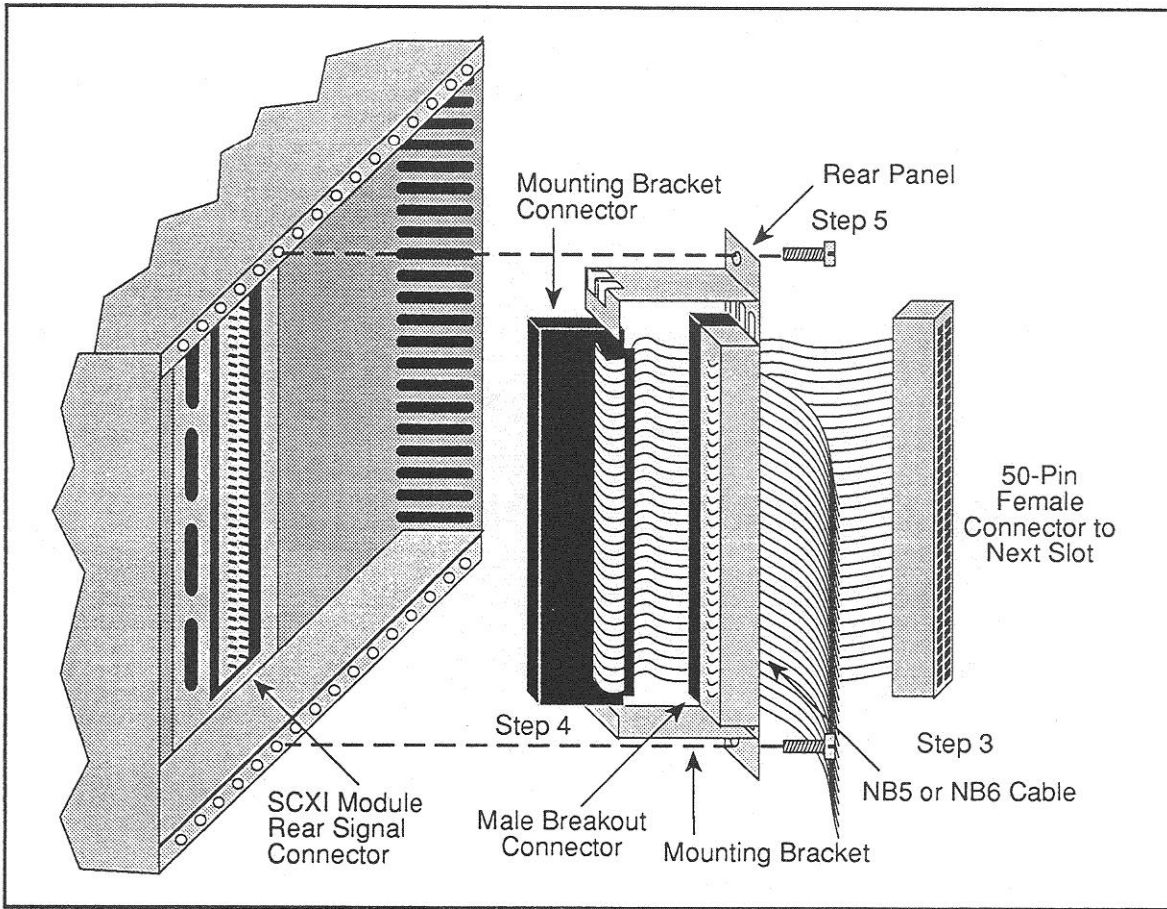


Figure 3. SCXI-1351 and NB5 or NB6 Cable Installation



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