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INSTALLATION INSTRUCTIONS

NI TB-2640

4 × 128 1-Wire Matrix Terminal Block for the NI PXI-2532

このドキュメントには、日本語ページも含まれています。

Introduction

The NI TB-2640 terminal block configures the NI PXI-2532 as a 4 × 128 1-wire matrix. The NI TB-2640 has ribbon cable headers to connect signals to the switch, and it provides optional isolation resistors to protect the reed relays from capacitive loads.

Refer to the *NI Switches Getting Started Guide* to determine when to install the NI TB-2640.

Make sure you have the following:

- NI TB-2640 terminal block
- 1/8 in. flathead and #1 Phillips screwdrivers
- Four 2 mm jumpers
- Four 34 conductor, 28 AWG, .050 in. pitch ribbon cable assemblies (not included)
- One 16 conductor, 28 AWG, .050 in. pitch ribbon cable assembly (not included)

Note Refer to the *Accessories* section for information about ordering the appropriate cable assemblies.

Connecting Ribbon Cables

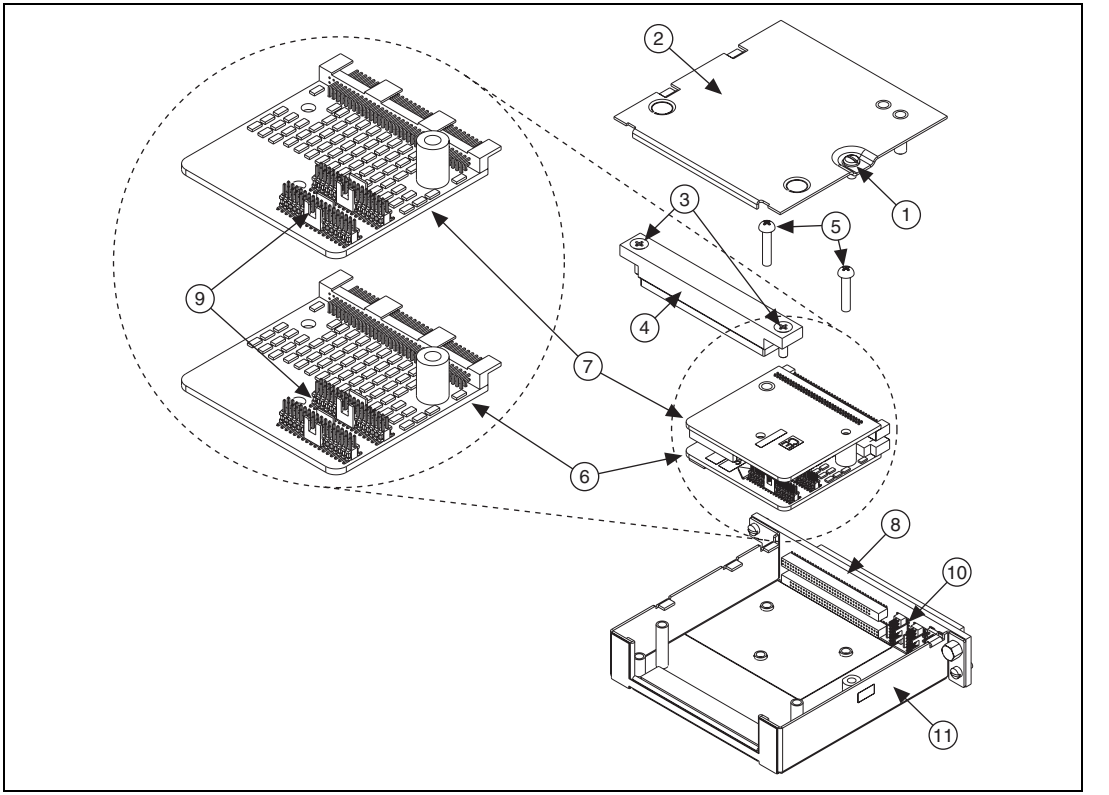
To connect ribbon cables to the terminal block, refer to Figures 1 and 2 while completing the following steps:

1. Remove the top cover screw.
2. Gently remove the top cover from the terminal block.

NATIONAL INSTRUMENTS

3. Loosen the two screws on the strain-relief assembly and remove the strain-relief bar.
4. Remove the two screws from the upper and lower column connection boards.
5. Disconnect the column connection boards from the module interface board by sliding them toward the front of the terminal block housing.
6. Connect each ribbon cable to the appropriate headers on the column connection boards and the module interface board.
7. Reassemble the terminal block.

Note For information about protection resistance and matrix expansion, refer to the *NI Switches Help*.



1 Top Cover Screw	7 Upper Column Connection Board
2 Top Cover	8 Module Interface Board
3 Strain-relief Screws	9 Column Headers
4 Strain-relief Bar	10 Row Headers
5 Column Connection Board Screws	11 Housing
6 Lower Column Connection Board	

Figure 1. NI TB-2640 Terminal Block

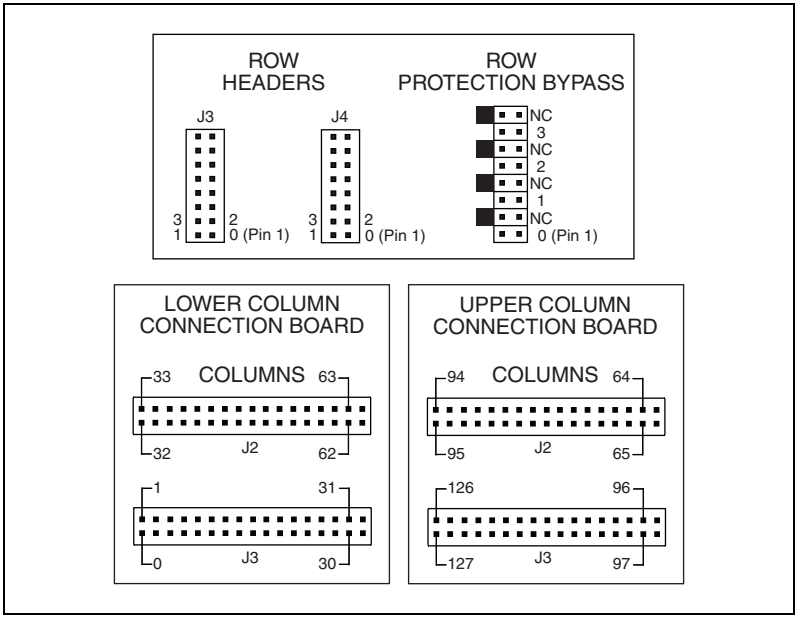


Figure 2. NI TB-2640 Terminal Block Signal Connections

Accessories

Table 1. Accessories for the NI TB-2640

Accessory	Manufacturer	Part Number
NI SCB-264*X* screw terminal block	National Instruments	779341-01
Row and column cable kit for the NI SCB-264*X* terminal blocks	National Instruments	779346-01
Row connection cable for column expansion	National Instruments	779325-01
16 Conductor, .05 in. pitch ribbon cable assemblies	Samtec	FFSD-08-01-N
34 Conductor, .05 in. pitch ribbon cable assemblies	Samtec	FFSD-17-01-N

Note For information about using shielded cabling, refer to the NI PXI-2532 Declaration of Conformity (DoC). To obtain the DoC, visit `ni.com/certification`, search by model number or product line, and click the appropriate link in the Certification column.

Specifications

This section lists additional specifications for the NI TB-2640 used with the NI PXI-2532. All specifications are subject to change without notice. Visit `ni.com/manuals` for the most current specifications.

Input Characteristics

All input characteristics are DC, AC_{pk}, or a combination unless otherwise specified.

Maximum switching voltage

- Channel-to-channel.....100 V
- Channel-to-ground.....100 V, CAT I

Caution This module is rated for Measurement Category I and intended to carry signal voltages no greater than 100 V. This module can withstand up to 500 V impulse voltage. Do *not* use this module for connections to signals or for measurements within Categories II, III, or IV. Do *not* connect to MAINs supply circuits (for example, wall outlets) of 115 or 230 VAC. Refer to the *Read Me First: Safety and Electromagnetic Compatibility* document for more information on measurement categories.

When hazardous voltages (>42.4 V_{pk}/60 VDC) are present on any relay terminal, safety low-voltage (<42.4 V_{pk}/60 VDC) cannot be connected to any other relay terminal.

Maximum current (per channel) .....0.5 A

DC path resistance .....<1.5 Ω

Row and column protection resistors (when used) .....100 Ω

Bandwidth (–3 dB, 50 Ω termination)

- Typical.....≥10 MHz

Crosstalk (50 Ω termination)

- Channel-to-channel
  - 10 kHz .....<–75 dB
  - 100 kHz .....<–55 dB
  - 1 MHz.....<–35 dB