INSTALLATION INSTRUCTIONS

NI TB-2645

2-Wire 16×16 or 1-Wire Dual 16×16 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-2645 terminal block configures the NI PXI-2532 switch module as a 1-wire dual 16 ×16 or 2-wire 16 ×16 matrix. The NI TB-2645 has ribbon cable headers to connect signals to the switch, and it provides optional isolation resistors to protect the reed relays of the switch from capacitive loads.

Refer to the *NI Switches Getting Started Guide* to determine when to install the NI TB-2645.

Make sure you have the following:

- NI TB-2645 terminal block
- 1/8 in. flathead and #1 Phillips screwdrivers
- One 34-conductor, 28 AWG, .050 in. pitch ribbon cable assembly (not included)
- Two 16-conductor, 28 AWG, .050 in. pitch ribbon cable assemblies (not included)

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

Connecting Ribbon Cables

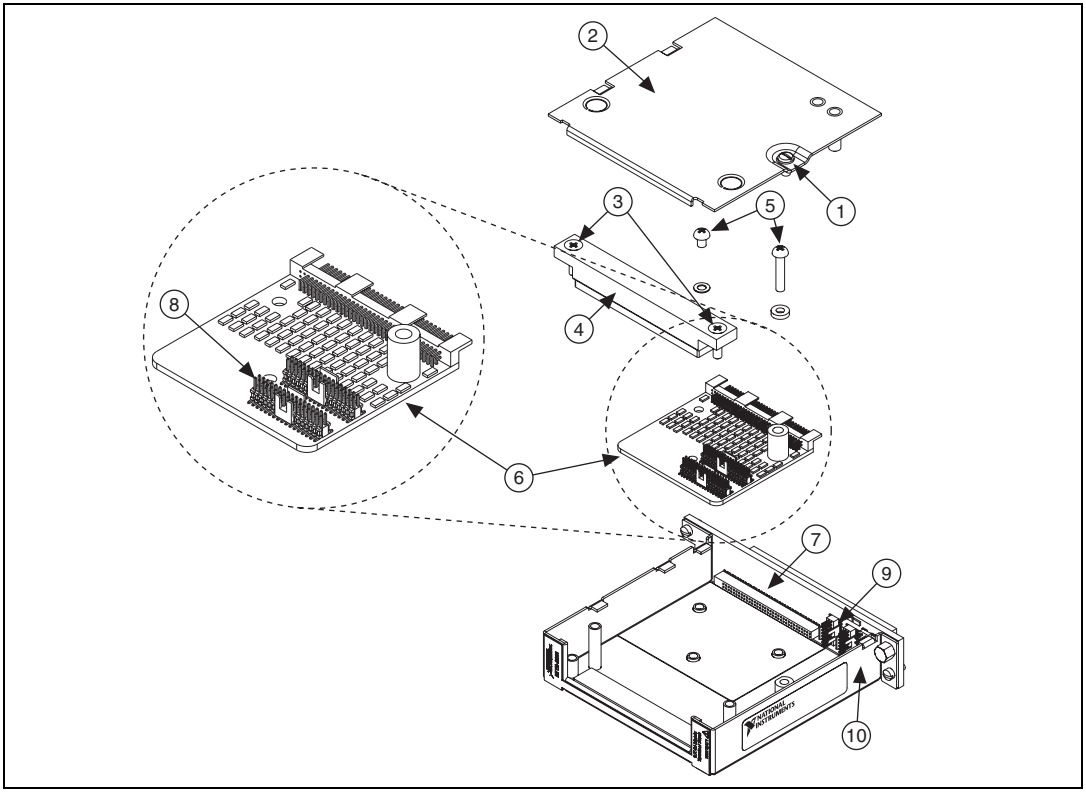
To connect ribbon cables to the terminal block, refer to Figures 1 and 2 while completing the following steps:

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 column connection board and retain the plastic spacer.
5. Disconnect the column connection board from the module interface board by sliding it toward the front of the terminal block housing.
6. Connect the 34-conductor ribbon cable to J3 on the column connection board and the two 16-conductor ribbon cables to J2 and J3 of 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	6	Column Connection Board
2	Top Cover	7	Module Interface Board
3	Strain-relief Screws	8	Column Header
4	Strain-relief Bar	9	Row Headers
5	Column Connection Board Screws	10	Housing

Figure 1. NI TB-2645 Terminal Block

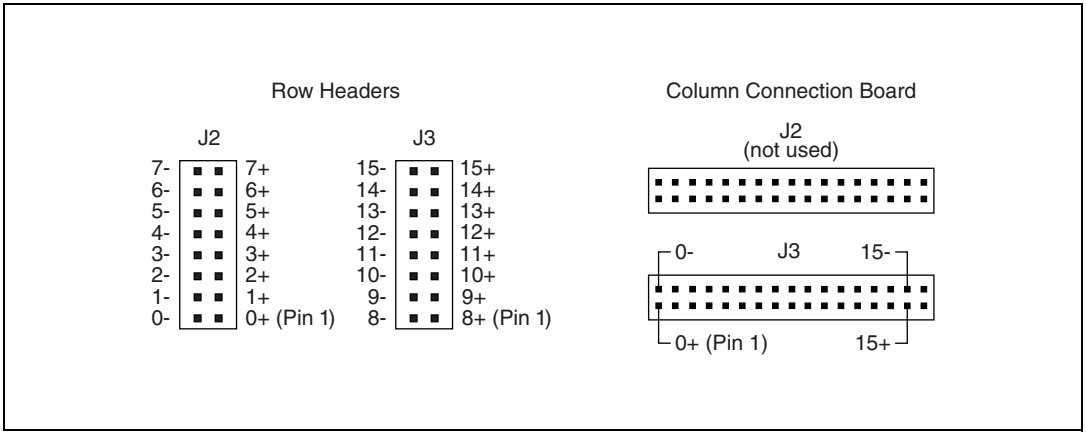


Figure 2. NI TB-2645 Terminal Block Signal Connections

Accessories

Visit `ni.com` for more information about National Instruments accessories.

Table 1. Accessories for the NI TB-2645

Accessory	Manufacturer	Part Number
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-2645 when 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

Cautions 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 about 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

Column protection
resistors (when used) .....100 Ω

Bandwidth (–3 dB, 50 Ω termination)

- Typical (1-wire).....≥15 MHz
- Typical (2-wire).....≥10 MHz

Crosstalk (50 Ω termination)

- Channel-to-channel (typical)
  - 10 kHz .....<–65 dB
  - 100 kHz .....<–50 dB
  - 1 MHz.....<–30 dB