
PXI-2541

Features

2025-03-20



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PXI-2541 Overview

PXI-2541 Pinout

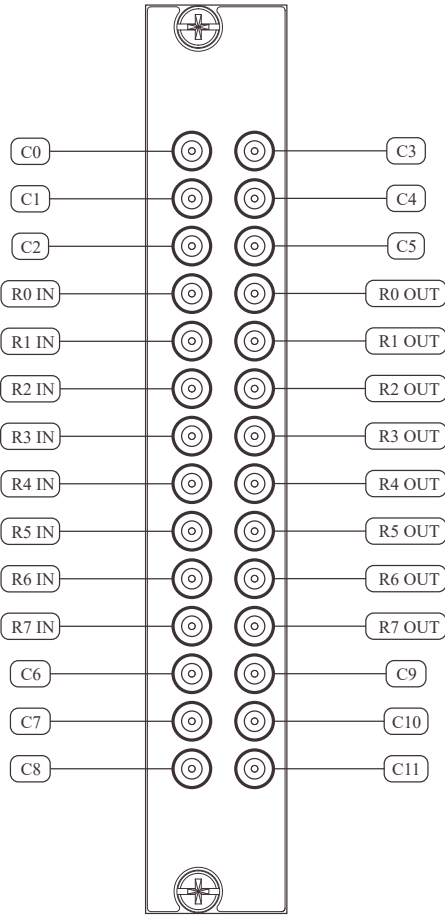
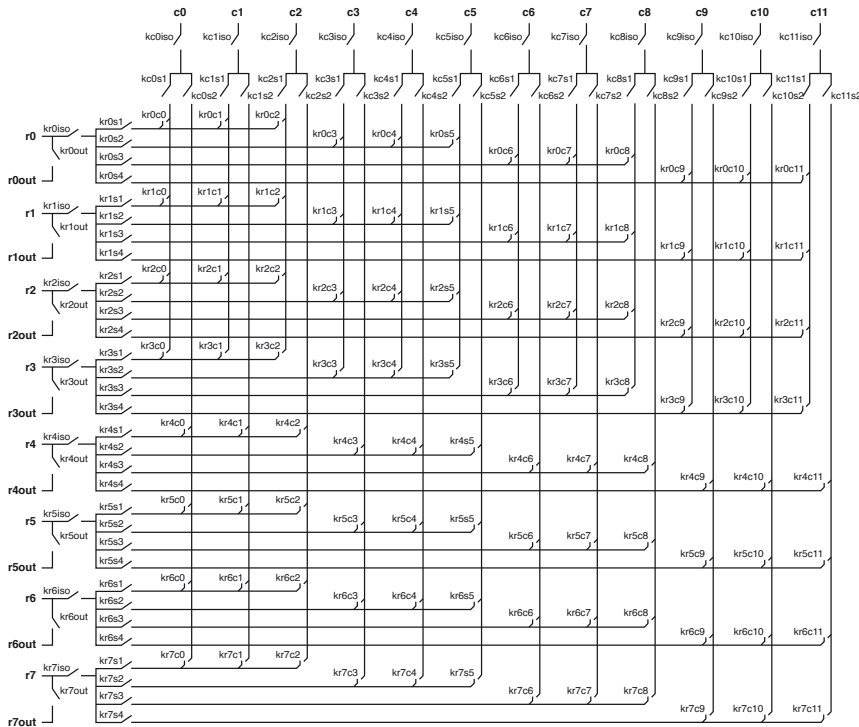


Table 1. Signal Descriptions

Signal	Description
Cx	Column connection
Rx IN	Row input connection
Rx OUT	Row output for column expansion

PXI-2541 Hardware Diagram

This figure shows the hardware diagram of the module.



Refer to the following lists for relay names and their functions on the module.

Row Isolation Relays

- kr0iso...kr7iso
- kr0out...kr7out
- kr0s1...kr7s1
- kr0s2...kr7s2
- kr0s3...kr7s3
- kr0s4...kr7s4

Crosspoint Relays

- kr0c0...kr0c11
- kr1c0...kr1c11

- kr2c0...kr2c11
- kr3c0...kr3c11
- kr4c0...kr4c11
- kr5c0...kr5c11
- kr6c0...kr6c11
- kr7c0...kr7c11

Column Isolation Relays

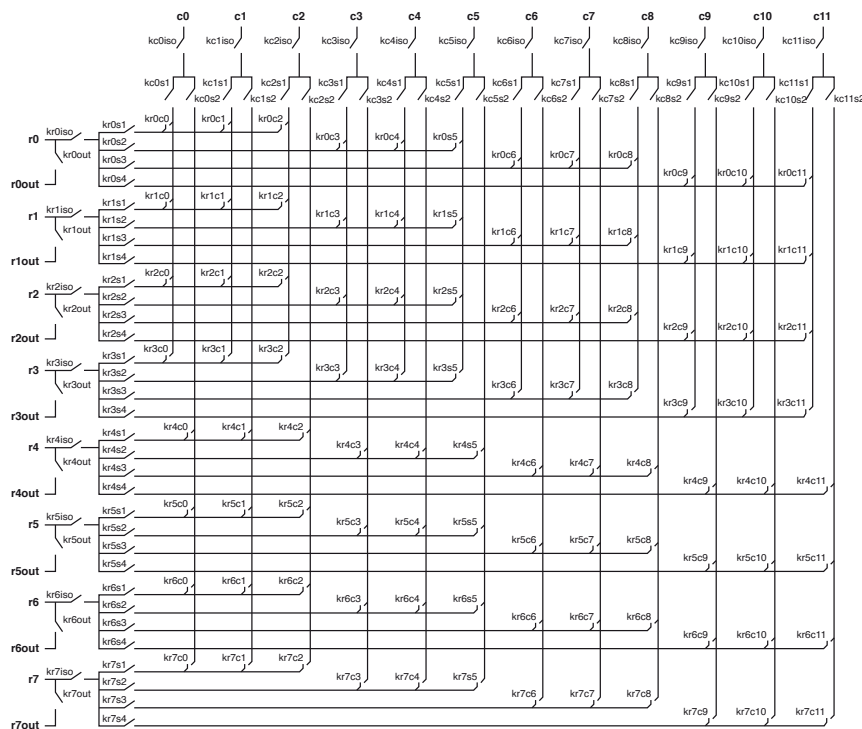
- kc0iso...kc11iso
- kc0s1...kc11s1
- kc0s2...kc11s2

PXI-2541 Topology

This figure describes the topology of the module.

Module software name: 2541/1-Wire 8x12 Matrix
(NISWITCH_TOPOLOGY_2541_1_WIRE_8X12_MATRIX)

1-Wire 8×12 Matrix Topology



Making a Connection

Both the scanning command, `r2->c1;`, and the immediate operation, `niSwitch Connect Channels VI` or the `niSwitch_Connect` function with parameters `r2` and `c1`, result in the following connection:

signal connected to R2 is routed to C1

PXI-2541 Matrix Expansion

You can expand the matrices of the module by increasing the number of columns in the matrix using the MCX Plug to MCX Plug RG316 cable. Complete the following steps to expand the number of columns of a matrix.

1. Connect one end of the MCX Plug to MCX Plug RG316 cable to a row out (rXout) connector on the module.
2. Connect the other end of the MCX Plug to MCX Plug RG316 cable to a row in (rX) connector on another PXI/PXIe-2540 or PXI/PXIe-2541 module.
3. Repeat for all rows on which column expansion is desired.

Figure 1. Matrix Expansion

