



PXIe-2746

User Manual



Provided by:

Test & Measurement Automation

Embedded Control & Monitoring

Cyth Systems
9939 Via Pasar
San Diego, CA 92126

phone (858) 537-1960
support@cyth.com



Authorized
Distributor



Integration
Partner

Contents

Welcome to the PXIe-2746 User Manual 3

PXIe-2746 Pinout..... 4

PXIe-2746 Topology 5

Welcome to the PXle-2746 User Manual

The PXle-2746 User Manual provides detailed descriptions of the product functionality and the step-by-step processes for use.

Looking For Something Else?

For information not found in the User Manual for your product, such as specifications and API reference, browse ***Related Information***.

Related information:

- [PXle-2746 Specifications](#)
- [Getting Started with Express Switches](#)
- [NI-Switch User Manual](#)
- [NI-SWITCH LabVIEW VIs](#)
- [NI-DAQmx Help](#)
- [NI-DAQmx C Reference](#)
- [NI-DAQmx and LabVIEW Compatibility](#)
- [Software and Driver Downloads](#)
- [Release Notes](#)
- [License Setup and Activation](#)
- [Dimensional Drawings](#)
- [Product Certifications](#)
- [Letter of Volatility](#)
- [Discussion Forums](#)
- [NI Learning Center](#)
- [NI Support](#)



Note The PXle-2746 is not recommended for switching balanced signals, such as IQ modulated differential signals, where the balance between the signals is very important.

PXIe-2746 Pinout

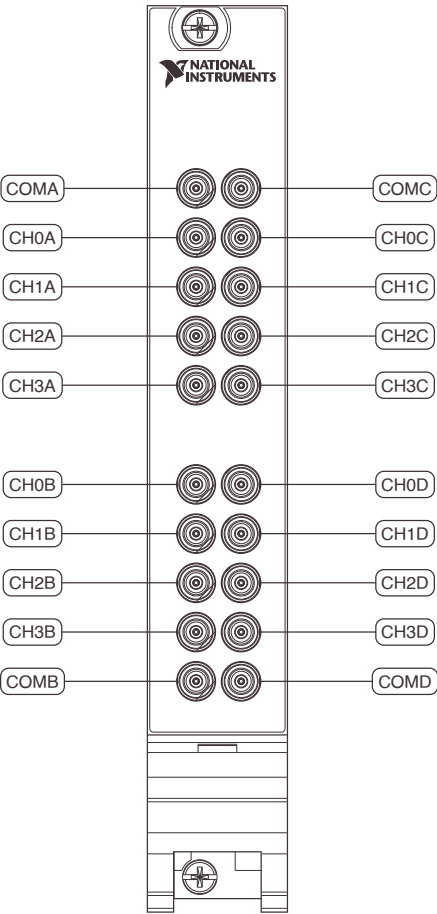


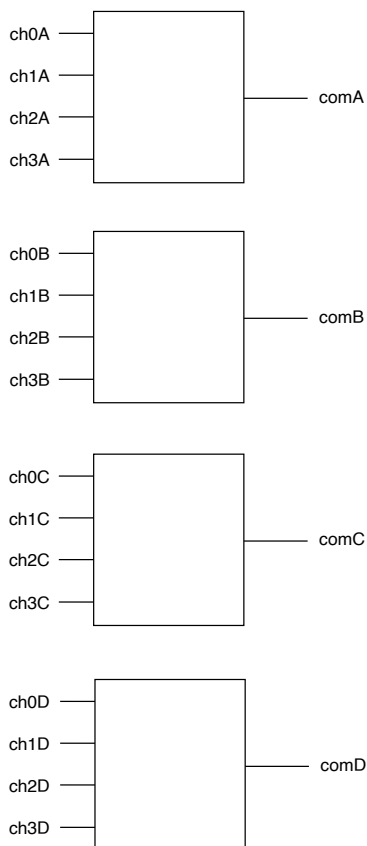
Table 1. Signal Descriptions

Signal	Description
CHxA	Bank A signal connection
CHxB	Bank B signal connection
CHxC	Bank C signal connection
CHxD	Bank D signal connection
COMx	Routing destination for channels on the corresponding bank

PXle-2746 Topology

Quad 4×1 Multiplexer (Quad SP4T) Topology

Software module name: 2746/Quad 4x1 Mux
(NISWITCH_TOPOLOGY_2746_QUAD_4X1_MUX). This module supports immediate operation mode.



Making a Connection

Call the `niSwitch Connect Channels VI` or the `niSwitch_Connect` function to connect channels in this topology. If applicable, you must call the `niSwitch Disconnect Channels VI` or the `niSwitch_Disconnect` function to disconnect an existing connection before you call the `niSwitch Connect`

Channels VI or the `niSwitch_Connect` function.



Note The `niSwitch Disconnect Channels VI` or the `niSwitch_Disconnect` function does not operate the relay until the next `niSwitch_Connect Channels VI` or the next `niSwitch_Connect` function is executed. Thus, one channel of the 4×1 multiplexer is always connected to a common channel. If you have reset the module or called the `niSwitch Disconnect All Channels VI` or the `niSwitch_DisconnectAll` function, you do not need to disconnect the default channel from COM upon initial connection.

The following procedure illustrates the VI/function calls necessary to make consecutive connections—one between CH1 and COM and the other between CH2 and COM:

1. Call the `niSwitch_Connect Channels VI` or the `niSwitch_Connect` function with parameters `ch1` and `com`.
2. Call the `niSwitch Disconnect Channels VI` or the `niSwitch_Disconnect` function with parameters `ch1` and `com`.
3. Call the `niSwitch_Connect Channels VI` or the `niSwitch_Connect` function with parameters `ch2` and `com`.

Figure 1. Channel Pairing and Relay Assignments

