

## INSTALLATION GUIDE

# IMAQ™ D6826 Breakout Cable

This guide describes how to use the National Instruments D6826 breakout cable to connect the IMAQ PCI/PXI-1428 image acquisition device to a Medium configuration Camera Link camera and provide connectivity to the device's triggering lines.

The D6826 breakout cable converts the VHDCI connector into an MDR 26-pin Camera Link connector for Medium configuration connectivity and a 25-pin D-SUB connector for triggering.

## Getting Started

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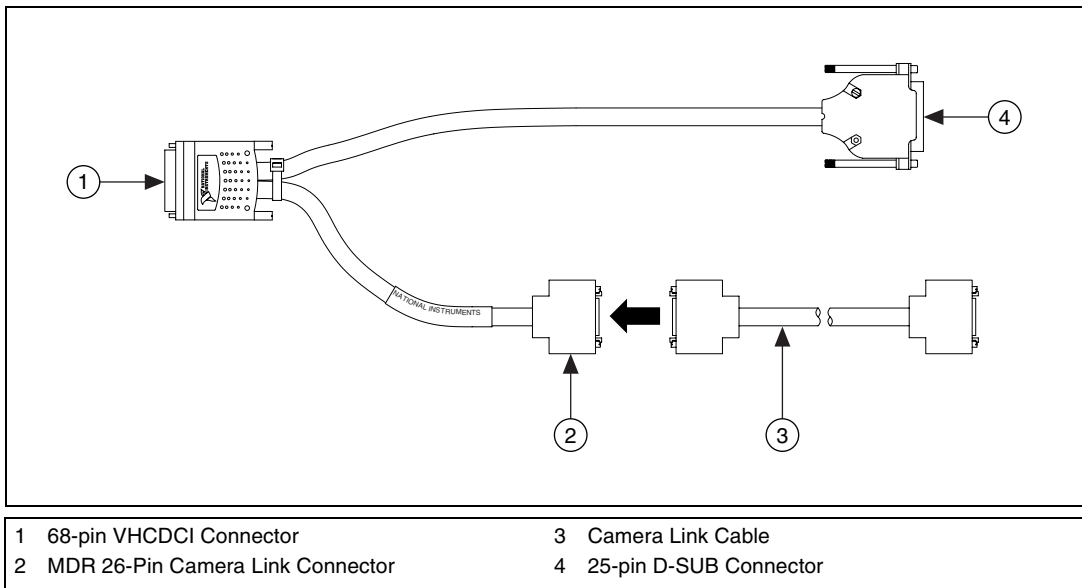
The following items are necessary for installing the IMAQ D6826 breakout cable:

- IMAQ D6826 breakout cable
- Standard Camera Link cable (For Medium configuration only)
- IMAQ 1428 device and documentation
- Camera and documentation

# Installation

Complete the following steps to connect the IMAQ D6826 breakout cable to the IMAQ 1428 device and camera. Refer to Figure 1 for an illustration of the cable.

1. Connect the 68-pin VHDCI connector to the connector on the IMAQ 1428 device and tighten the thumbscrews.
2. For Medium configuration, connect the MDR 26-pin Camera Link connector to a standard Camera Link cable and tighten the thumbscrews.
3. For Medium configuration, connect the Camera Link cable to the Medium configuration connector of the camera.
4. For triggering, connect the 25-pin D-SUB connector to your application's timing and triggering devices.



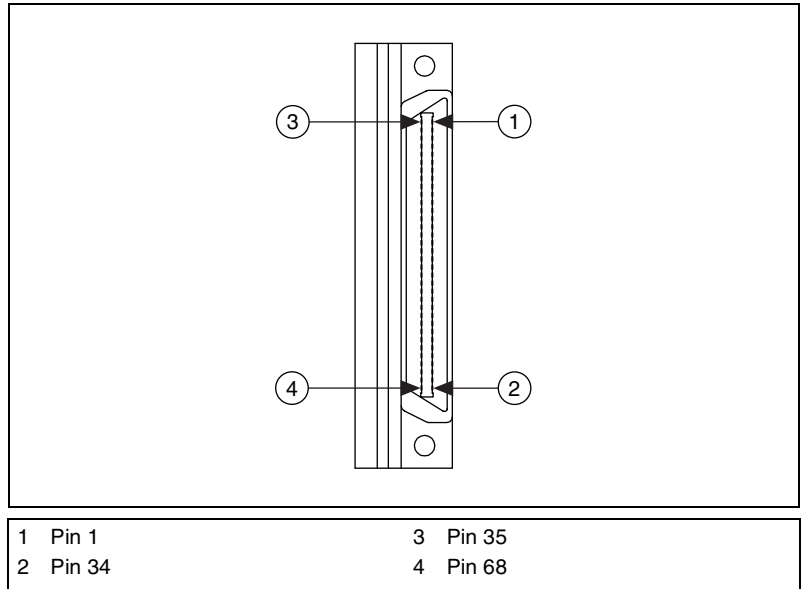
**Figure 1.** IMAQ D6826 Breakout Cable



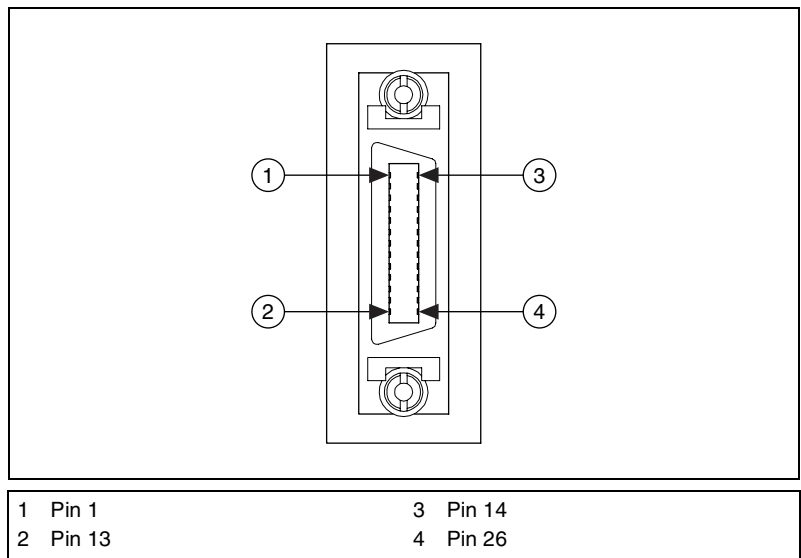
**Note** If your application uses Base configuration only, you will not use the MDR 26-pin connector.

# Connectors

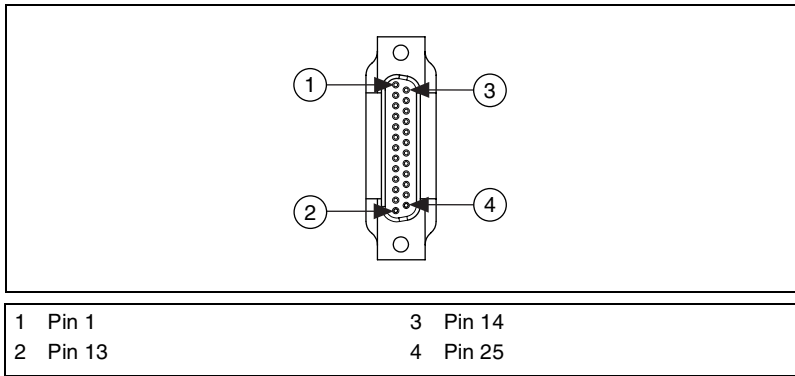
Refer to Figures 2, 3, and 4 for diagrams of the IMAQ D6826 breakout cable connectors.



**Figure 2.** 68-Pin VHDCI Connector (Cable)



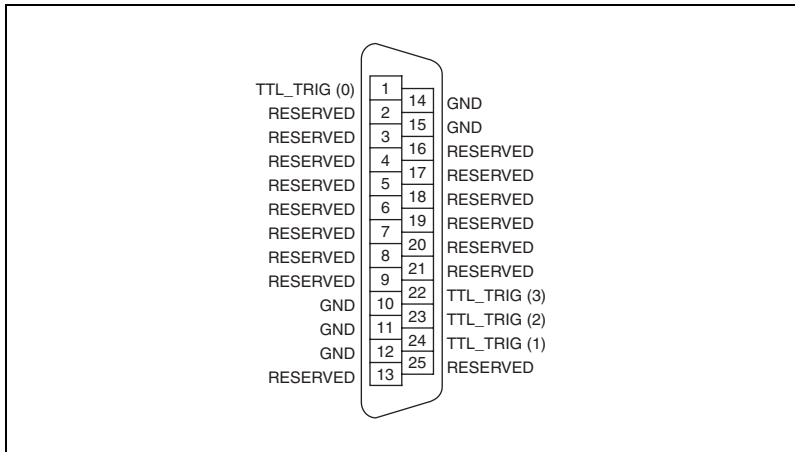
**Figure 3.** MDR 26-Pin Medium Configuration Camera Link Connector (Cable)



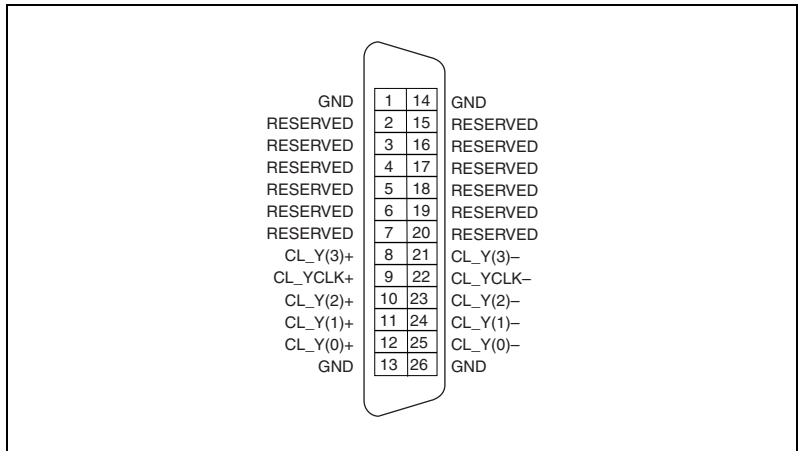
**Figure 4.** 25-Pin D-SUB Connector (Cable)

## Pin Assignments

Refer to Figures 4 and 5 for the pin assignments for the 25-pin D-SUB and MDR 26-pin Camera Link connectors.



**Figure 5.** 25-Pin D-SUB Trigger Connector Pinout (Cable)



**Figure 6.** MDR 26-Pin Medium Configuration Camera Link Connector Pinout (Cable)

## Triggering

You can use the IMAQ D6826 breakout cable for applications that require precise triggering or exposure control. The IMAQ D6826 breakout cable connects the trigger lines on the IMAQ 1428 to the 25-pin D-SUB connector. You can use these trigger lines to generate precise timing and triggering for controlling a camera or other devices. You can also use the trigger lines as general purpose I/O lines.

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