

PXIe-1435

High Performance Camera Link Frame Grabber

- Frame grabber for Extended-, Full-, Medium-, and Base-configuration Camera Link cameras
- Supports up to 10-tap, 80-bit images at 20 to 85 MHz pixel clock frequency
- 850 MB/s of available bandwidth over two Camera Link cables
- Power over Camera Link (PoCL) support, can be used with PoCL cables to power cameras, or without
- I/O includes 4 TTL , 2 opto-isolated inputs, 1 quadrature encoder



Overview

The NI PXIe-1435 is an image acquisition board for Base-, Medium-, and Full-configuration Camera Link cameras that is ideal for machine vision and scientific imaging applications requiring high data throughput.

As the highest-bandwidth accepted imaging standard, Camera Link works well for high-resolution cameras and line-scan cameras. The NI PXIe-1435 also supports Power over Camera Link (PoCL) and can be used to power cameras through PoCL-enabled cables. On-board digital I/O includes 4 TTL , 2 opto-isolated inputs, and 1 quadrature encoder.

The NI PXIe-1435 image acquisition board is ideal for many industrial, and biomedical imaging applications. Example industrial applications include web and surface inspection, as well as fault analysis by setting up a stop trigger to record images before and after an event on the factory floor. Example scientific applications include analyzing intricacies in movement and recording the stimulus responses in objects from heart valves to eye corneas.

Like all NI vision hardware, the NI PXIe-1435 is programmable using the NI Vision Development Module. You also can configure it using NI Vision Builder for Automated Inspection (AI) software for faster development and simplified maintenance.

Specifications

Specifications Summary

General

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|--------------------------------|---------------------|
| Product Name | PXIe-1435 |
| Product Family | Frame Grabbers |
| Form Factor | PXI Platform |
| PXI Bus Type | PXI Express |
| Part Number | 781699-01 |
| Operating System/Target | Real-Time , Windows |

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| LabVIEW RT Support | Yes |
| Included Vision Software | Vision Acquisition Software |
| Camera Connectivity | |
| Camera Interface | Camera Link |
| Number of Camera Input Ports | 1 |
| Camera Link Configuration | Extended-Full , Medium , Full , Base |
| Frame Grabber | |
| FPGA Target | No |
| PCIe Link Width | x4 |
| On-Board Memory | 512 MB |
| Dual-Base Configuration Support | No |
| Camera Link Connector Type | Mini (SDR) |
| Power over Camera Link (PoCL) compatible | Yes |
| Total Power Supplied for Cameras | 4 W |
| Digital I/O | |
| Number of Isolated Input Channels | 2 |
| Number of Bidirectional TTL Channels | 4 |
| Number of Quadrature Encoder (RS-422) Inputs | 2 |
| Minimum Detectable Pulse Width(Optically Isolated Inputs) | 10 us |
| Maximum Pulse Rate(Optically Isolated Outputs) | 100 kHz |
| Maximum Pulse Rate(TTL Lines) | 2 MHz |
| Physical Specifications | |
| Length | 16 cm |
| Height | 10 cm |
| Minimum Operating Temperature | 0 °C |
| Maximum Operating Temperature | 55 °C |