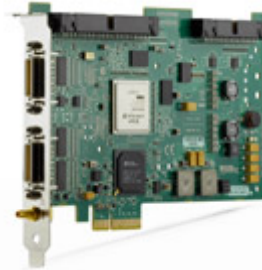


## NI PCIe-1433

### 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) compatible, can be used with PoCL cables to power devices
- Onboard 512 MB FIFO enhances performance for highest-bandwidth use cases
- Optional digital I/O expansion card for extra triggering and isolation



### Overview

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The NI PCIe-1433 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 PCIe-1433 also supports Power over Camera Link (PoCL) and can be used to power cameras through PoCL-enabled cables. You can access additional digital I/O lines using optional PCI and PCI Express I/O extension boards, which expose the following digital lines: eight TTL, three optically isolated input, three optically isolated output, and one quadrature encoder.

The NI PCIe-1433 image acquisition board is ideal for many industrial, life science, 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 PCIe-1433 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

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#### Specifications Documents

- Specifications (2)

#### Specifications Summary

General	
Product Name	NI PCIe-1433
Product Family	Frame Grabbers
Operating System/Target	Real-Time , Windows
Included Vision Software	Vision Acquisition Software

<b>Product Certifications</b>	RoHS
<b>Camera Connectivity</b>	
<b>Camera Interface</b>	Camera Link
<b>Number of Camera Input Ports</b>	2
<b>Camera Link Configuration</b>	Base , Full , Medium
<b>Frame Grabber</b>	
<b>FPGA Target</b>	No
<b>PCIe Link Width</b>	x4
<b>On-Board Memory</b>	512 MB
<b>RTSI</b>	Yes
<b>Dual-Base Configuration Support</b>	No
<b>Camera Link Connector Type</b>	Standard (MDR)
<b>Pixel Clock Frequency Range</b>	20 MHz , 85 MHz
<b>Power over Camera Link (PoCL) compatible</b>	Yes
<b>Digital I/O</b>	
<b>Compatibility w/ CameraLink I/O extension board</b>	Compatible
<b>Timing</b>	
<b>Maximum Trigger Rate</b>	2 MHz
<b>Physical Specifications</b>	
<b>Length</b>	17.5 cm
<b>Width</b>	10.7 cm
<b>Minimum Operating Temperature</b>	0 °C
<b>Maximum Operating Temperature</b>	50 °C