

# Image Acquisition from IEEE 1394 Cameras

## NI PCI-8252, NI PXI-8252, NI PCI-8254R, NI PCIe-8255R **NEW!**

- Multiple IEEE 1394a and IEEE 1394b ports
- Up to 800 Mb/s data transfer rate
- Up to 12 W of power for IEEE 1394 devices
- 29 reconfigurable digital I/O lines (NI 825xR)

### Operating Systems

- Windows 2000/XP
- LabVIEW Real-Time

### Recommended Software

- LabVIEW
- Vision Development Module
- Vision Builder for Automated Inspection

### Other Compatible Software

- LabWindows/CVI
- Visual Basic
- C/C++

### Driver Software (included)

- Vision Acquisition software



## IEEE 1394a Interfaces

National Instruments 8252 devices are OHCI-compliant IEEE 1394a interfaces that run natively in Windows or LabVIEW Real-Time, offering up to 400 Mb/s of bandwidth. Three IEEE 1394 ports are provided, but you can add more devices can using hubs. An important application of these devices is collection of images from IEEE 1394a cameras.

Features	NI 8252	PCI-8254R	NI PCIe-8255R
Description	IEEE 1394a interface	IEEE 1394a interface with built-in digital I/O	IEEE 1394a and IEEE 1394b interface with built-in digital I/O
Bus	PCI and PXI	PCI	PCI Express
Applicable Cameras	Any DCAM-compliant IEEE 1394a camera	Any DCAM-compliant IEEE 1394a camera	Any DCAM-compliant IEEE 1394a or IEEE 1394b camera
Camera Inputs	3 direct, 16 with a hub	2 direct, 16 with a hub	2 direct, 16 with a hub
Digital I/O	–	29 isolated TTL DIO lines, 15 input, 14 output	29 isolated TTL DIO lines, 15 input, 14 output

## IEEE 1394 Interfaces with Reconfigurable DIO

The National Instruments 825xR image acquisition devices combine an IEEE 1394 host adapter with industrial digital I/O, similar to NI CVS-145x systems. You can access all 29 digital lines for synchronizing vision components and for communicating with actuators, PLCs, and NI programmable automation controllers (PACs). As with CVS-145x systems, you can extend the functionality of NI 825xR devices with NI FPGA technology.

### Ordering Information

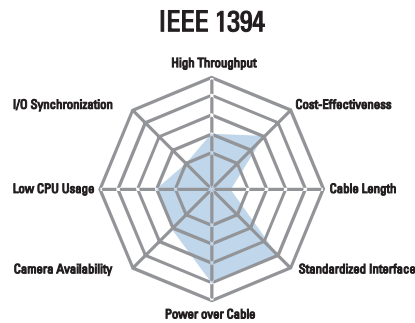
NI PCIe-8255R .....	779679-01
NI PCI-8254R .....	779303-01
NI PCI-8252 .....	779024-01
NI PXI-8252 .....	778926-01

Includes Vision Acquisition software.

Digital I/O Terminal Block and Prototyping Accessory for NI 825xR.....779166-01

### BUY NOW!

For complete product specifications, pricing, and accessory information, call 866 265 9891 (U.S. only) or go to [ni.com/vision](http://ni.com/vision).



## Specifications

These specifications are typical at 25 °C, unless otherwise stated.

### IEEE 1394

Number of ports .....	2 (NI 825xR), 3 (NI 8252)
Speed.....	100, 200, or 400 Mb/s
.....	800 Mb/s (NI PCIe-8255R)

### Power Requirements

IEEE 1394 bus power.....	18 W, maximum (shared by all ports)
Camera interface.....	IEEE 1394a, IEEE 1394b (NI PCIe-8255R)

### TTL Inputs (NI 825xR only)

Number of channels.....	2
Minimum pulse detected .....	500 ns
Power-on state .....	Input (high-impedance) 61.9 k $\Omega$ pull-up to 5 V

### TTL Outputs (NI 825xR only)

Number of channels.....	10
Output voltage range .....	0 to 5 V
Maximum pulse rate .....	2 MHz

### Optically Isolated (Current Sinking) Inputs (NI 825xR only)

Number of channels.....	13
Input voltage range .....	0 to 30 V
Maximum pulse rate .....	100 kHz

### Optically Isolated (Current Sourcing) Inputs (NI 825xR only)

Number of channels.....	4
On-state voltage range .....	5 to 30 V, maximum
Maximum pulse rate .....	10 kHz (maximum load resistance 100 k $\Omega$ )