

# PCI DV FOX

PCI digital video ("no A" series) fiberoptic interface for Camera Link



## Description

The PCI DV FOX is a PCI fiberoptic interface that provides long-range uncompressed image capture for Camera Link cameras. It allows one or optional two SFF transceivers, supporting one medium- or up to two base-mode cameras up to 100 kilometers from the host computer (depending on transceivers).

The board pairs with one or more EDT extenders (RCX C-Link) to convert data from most camera types to fiberoptic cable, via one or optional two SFF fiberoptic transceivers.

The board fits in any PCI bus slot. Images of any resolution are captured and displayed, in real time, via DMA to the host computer; speed, resolution, and buffers are limited only by host bandwidth and memory.

Line and frame triggering are supported over camera control lines.

Provided with the board are drivers for supported operating systems and a software development kit that includes C language libraries, examples, utilities, image capture and display GUI, camera configuration files, and Camera Link standard DLL for camera control.

## Features

- Fiberoptic interface fits in a PCI or PCI-X bus
- Supports one medium- or up to two base-mode cameras via one or more EDT extenders (RCX C-Link)
- Captures and displays images in real time, via DMA to host computer
- Allows remote operation – up to 100 km from host, depending on transceivers
- Provides electrical isolation of camera from host
- Provides onboard region-of-interest control
- Supports line and frame triggering over camera control lines
- Supports data rates up to 220 MB/s, as supported by host

## Applications

- Astronomy / biology / microscopy
- Aerial mapping / traffic systems
- Commercial film / multimedia
- Medical and nuclear imaging
- Remote scientific monitoring
- Manufacturing / inspection
- Machine vision / robotics
- Security / surveillance
- Scanning / archiving

# Specifications

Memory	FIFOs for up to several lines of data; no frame memory		
Data Rates	Per transceiver Aggregate (peak / typical)	Up to 120 MB/s Up to 220 / 190 MB/s (or maximum supported by host)	
Data Format (I/O)	Camera Link input		
Camera Link Compliance (with RCX C-Link module)	Modes Pixel clock rate Serial CC1 - CC4	Base, dual base, medium – common configurations 20–60 MHz Via API or serial DLL (9600 to 115,200 baud) Discretely programmable for steady-state, trigger, and timed pulse	
EU Compliance	CE RoHS WEEE	Contact EDT Contact EDT WEEE directive 2002/96/EC	
PCI Compliance	PCI version Direct memory access (DMA) Clock rate / data width	PCI 2.3 (will work in a PCI-X bus) Yes 66 MHz / 32 bits	
Laser Safety	Class 1 (for EDT-supplied transceivers)		
Noise	0 dB		
Transceivers	One or optional two (SFF), with duplex LCs. The fiber connections use standard physical contact (PC) polish. EDT provides SFFs for these wavelengths and cables:		
	<b>Wavelength</b>	<b>Cable</b>	<b>Range at 1.25 Gb/s</b>
	850 nm	62- $\mu$ MMF	300 meters
	850 nm	50- $\mu$ MMF	500 meters
	1310 nm	9- $\mu$ SMF	10 kilometers
	<b>For longer ranges (10 to 100+ kilometers):</b> CWDM and bidirectional transceivers are available in various wavelengths; contact EDT.		
Triggering	CC lines supported via fiber, or externally via connector (opto-coupled Berg)		
Connectors	In addition to transceivers (above), connectors include: One opto-coupled Berg	For external triggering	
Cabling	Cabling is purchased separately; consult EDT for options. Fiber connection polish	Standard physical contact (PC)	
Physical	Weight Dimensions	3.3 oz. typical 5.1 x 3.8 in.	
Environmental	Temperature (operating / non-operating) Humidity (operating / non-operating)	10° to 40° C (extended -40° to 60° C, 33 MHz bus only) / -40° to 60° C 20% to 80% non-condensing at 40° C / 95% non-condensing at 40° C	
System and Software	System must have a PCI or PCI-X bus, 66 MHz or faster (33 MHz will work, but at reduced data rates). Software is included for Windows and Linux; for versions, see edt.com.		

## Ordering Options

- Transceivers: **1 / 2** [see options above]
- Environmental: Extended temperature

**Bold is default. Ask about custom options.**