

ExpressLink DVa

ExpressCard Camera Link digital video framegrabber



Description

The ExpressLink DVa is a Camera Link interface (ExpressCard 34 or 54) that enables high-resolution image capture for a laptop or notebook computer.

The product supports one medium- or up to two base-mode Camera Link cameras via two MDR26 connectors; one or both can be replaced with EDT or third-party small form pluggable (SFP) fiberoptic transceivers. With the SFP option and an EDT RCX C-Link extender at the camera end, the camera can be up to 10 kilometers from the host (laptop).

Image capture and display is in real time; speed, resolution, and buffers are limited only by host bandwidth and memory. Optional DRAM (1 GB DDR2 SODIMM) provides snapshot recording and frame buffering.

Line and frame triggering are supported over camera control lines, while onboard UART provides serial control.

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

- Camera Link interface fits in an ExpressCard 34 or 54 slot
- Supports up to two cameras via MDR26 or (EDT or third party) SFP connectors
- Provides frame storage and buffering via optional 1 GB DRAM (DDR2 SODIMM)
- Accepts images of any resolution; sends data directly to host via DMA
- Allows remote operation – cameras can be located up to 10 km from host
- Provides electrical isolation of camera from host
- Provides onboard region-of-interest control
- Supports line and frame triggering over camera control lines

Applications

- Astronomy
- Aerial mapping
- Computer microscopy
- Intelligent traffic systems
- Manufacturing / inspection
- Remote scientific monitoring
- Medical and nuclear imaging
- Image archiving
- Machine vision
- Multimedia
- Security

Specifications

Product Type	ExpressLink DVa is an ExpressCard Camera Link digital video interface for a laptop or notebook computer.		
Memory	FIFO DRAM (DDRs SODIMM)	Up to several lines of data 0 or optional 1 GB	
Data Rates	Peak Typical	TBD TBD	
Camera Link Compliance (with RCX C-Link module)	Mode / pixel clock rate Serial CC1 - CC4 Power over Camera Link (PoCL) Connectors	Base, medium / 20-85 MHz Via API or serial DLL (9600 to 115,200 baud) Discretely programmable for steady-state, trigger, and timed pulse Yes MDR26 or optional SFP, with optional Lemo (see Connectors, below)	
EU Compliance	CE RoHS WEEE	Contact EDT Contact EDT Contact EDT	
PCI Express Compliance	PCIe version Direct memory access (DMA) Number of lanes	PCIe 1.1 Yes 1	
Laser Safety	Class 1		
Noise	0 dB		
Connectors	Two MDR26 or two SFPs, or one of each. SFPs can be from a third party or from EDT. EDT provides SFPs for these wavelengths and cables:		
	Wavelength	Cable	Range at 1.25 Gb/s
	850 nm	62-micron MMF	300 meters
	850 nm	50-micron MMF	500 meters
	1310 nm	9-micron SMF	10 kilometers
	There is also an optional 7-pin Lemo for external triggering.		
Triggering	CC lines supported via fiber, or externally via connector (opto-coupled Berg or optional 7-pin Lemo – mate to FGG.OB.307.CLAD.56)		
Cabbling	Cabbling is purchased separately; consult EDT for options.		
Physical	Weight Dimensions	11.8 oz. typical (with ExpressCard adapter) 5.00 x 4.00 x 1.25 in.	
Environmental	Temperature Humidity	Operating 10° to 40° C Non-operating -40° to 60° C Operating 20% to 80%, non-condensing at 40° C Non-operating 95%, non-condensing at 40° C	
System and Software	System must have an ExpressCard 34 or 54 slot. Software is included for Windows and Linux, with limited support for Solaris, Mac OS, and VxWorks; for versions, see www.edt.com .		

Ordering Options

- Connectors:
 - **2 MDR26** / 2 SFP (**850** / 1310 nm) / 1 of each
 - Lemo - 1 for triggering

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



Parhelia B.V.
 info@parhelia-bv.eu
 www.parhelia-bv.com
 ☎ +31(0)10 284 95 46