

cPCI DV C-Link

CompactPCI digital video ("no A" series) Camera Link interface



Description

The cPCI DV C-Link is a cPCI Camera Link interface that provides uncompressed image capture for digital video. It has two MDR26 connectors to support one medium- or up to two base-mode cameras.

The board comes in a 3U or 6U CompactPCI form factor. 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.

External triggering is enabled by the provided Berg connector (for 3U or 6U) or the optional DB15 (6U only).

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 a CompactPCI 3U or 6U bus
- Supports one medium- or up to two base-mode cameras
- Captures and displays images in real time, via DMA to host computer
- 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

Form Factor	3U or 6U		
Memory	FIFOs for up to several lines of data; no frame memory		
Data Rates	Peak / typical	Up to 220 MB/s / 190 MB/s or maximum supported by host	
Data Format (I/O)	Camera Link		
Camera Link Compliance	Modes	Base, dual base, medium – common configurations	
	Pixel clock rate	20–85 MHz	
	Serial	Via API or serial DLL (9600 to 115,200 baud)	
	CC1 - CC4	Discretely programmable for steady-state, trigger, and timed pulse	
	Connectors	Two MDR26 for data and control	
PCI Compliance	PCI version	PCI 2.3	
	Direct memory access (DMA)	Yes	
	Clock rate / data width	66 MHz / 32 bits	
cPCI Compliance	PICMG 2.0 R3.0		
Noise	0 dB		
MTBF	Estimated at 200,000 hours		
Triggering	Via CC lines, or externally via connector (opto-coupled Berg for 3U or 6U, or DB15 for 6U only)		
Connectors	Two MDR26 Camera Link	For data and control	
	One opto-coupled Berg	For external triggering	
	One optional DB15	For external triggering	
Cabling	Cabling is purchased separately; consult EDT for options.		
Physical	For 3U and 6U:	3U	6U
	Weight	5.2 oz. typical	8.9 oz. typical
	Dimensions (not including back panel / connectors)	4.0 x 6.3 x 0.4 in.	9.2 x 6.3 x 0.4 in.
Environmental	Temperature (operating / non-operating)	10° to 40° C (extended -40° to 60° C, 33 MHz bus only) / -40° to 60° C	
	Humidity (operating / non-operating)	1% to 90%, non-condensing at 40° C / 95%, non-condensing at 45° C	
System and Software	System must have a 3U or 6U CompactPCI 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

- Form factor: 3U / 6U
- Connector: **Berg (included)** / DB15 (optional), for external triggering, IRIG-B input, or both
- Environmental: Extended temperature

Ask about custom options.