

PCIe DV C-Link



Description

The PCIe DV C-Link provides high-resolution image capture for Camera Link monochrome and color digital cameras. Two MDR 26-pin connectors (Camera Link standard) are provided, for two base-mode, one medium-mode, or one full-mode Camera Link camera.

The PCIe DV C-Link is a DMA interface with 800 megabytes per second capability in a four-, eight-, or sixteen-lane PCIe slot. Spatial and depth resolution and the number of buffers are limited only by the host memory. Maximum camera speed is determined by the bandwidth available on the host PCIe bus. Images can be captured and displayed in real time. The compact, half-length board fits in any four-, eight-, or sixteen-lane PCIe slot.

Included with the board are drivers for all supported operating systems, SDK including C language libraries, utilities, examples, camera configuration files, Camera Link standard DLL for camera control, and image capture or display GUI.

Features

Four-lane PCIe local bus board

Up to 28 bits per channel

Direct memory access to host memory; camera resolution-independent

Onboard region of interest control

PCIe local bus data rates up to 800 megabytes per second or maximum supported by host

Can support one or two base-mode, one medium-mode, or one full-mode camera

Triggering via internal trigger, external trigger, programmable pulse-width, or free run

Also available in the PCI, PMC, and Compact PCI form factor

Optional DDR2 SDRAM for JPEG compression

Optional microcontroller for IRIG time coding

Specifications

| | | |
|-----------------------------------|---|--|
| Video Interface | A field-programmable gate array is configured for a specific camera or class of cameras from a PROM at boot time, and registers defining specific camera behavior are set when the driver is loaded. Thirty-two LVDS signals are configured as inputs or outputs, as required by the camera. The PCIe DV C-Link offers optional frame buffer memory. Video data is stored in host memory as required by the camera and application. | |
| PCIe Bus Compliance | PCIe Version Number of Slots DMA Lanes | PCIe 1.1 1 Yes four |
| EU Compliance | CE RoHS WEEE | Low Voltage Directive 73/23/EEC EMC Directive 2004/108/EC RoHS Directive 2002/95/EEC WEEE Directive 2002/96/EC |
| Device Interface | 4 KB FIFO for input Onboard UART for Camera Link Serial | |
| Cables | Standard 3M Camera Link cables (3M P/N 14X26-SZLB-XXX-OLC). Cable assemblies are typically provided with the camera. Cables and connectors are available from 3M. | |
| Physical | Dimensions Weight Connectors | 4.5" x 4.0" x 0.5" 3.0 oz. Two MDR-26 pin connectors |
| Power | 2 A at 3.3 V DC | |
| Environmental | Temperature Humidity | Operating: 10° to 40° C Non-operating: -20° to 60° C Operating (extended temp): -40° to 85° C Operating: 20% to 80% non-condensing at 40° C Non-operating: 95% non-condensing at 40° C |
| Noise | 0 dB | |
| Mean Time Between Failures | Estimated at 200,000 hours | |
| System Requirements | Intel, AMD, SPARC, or PowerPC computer with 66 MHz PCI Bus or faster (will run in 33 MHz slot with reduced performance) | |

Ordering

Ordering options are listed below. To order, contact our sales department or your distributor. Be sure to specify which cable will be needed (if any).

PCIe DV C-Link

Form factor options: PCI, PMC, Compact PCI
DDR2 SDRAM: 256 MB, 512 MB, 1 GB
IRIG
Option: extended temperature

Contact

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