

VisionLink F1

Camera Link 1-lane framegrabber for PCI Express



Description

The VisionLink F1 is a Camera Link PCI Express x1 framegrabber with one or two SDR26 connectors for up to two base mode cameras (up to 400 MB/s total in a PCIe Gen2 slot).

The compact board has a half- or full-height backpanel and fits in a 1-, 4-, 8-, or 16-lane PCIe slot.

Image capture and display is in real time via DMA to the host computer, with onboard region-of-interest (ROI) control. For additional FIFO / data buffering, optional DDR3 memory (128 MB) is available.

Line and frame triggering are supported internally via standard camera control (CC) lines, or externally (opto-coupled) via the included Berg or optional Lemo connector. Similarly, an optional IRIG-B timecode input is available via the Berg or Lemo connector. Standard Camera Link serial communication also is supported.

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 PCIe x1 interface fits in a 1-, 4-, 8-, or 16-lane PCIe slot
- Comes with half- or full-height backpanel
- Provides one or two SDR26 connectors for one or two base mode cameras
- Supports data rates up to 400 MB/s total in a PCIe Gen2 slot
- Offers optional 128 MB DDR3 for FIFO / data buffering
- 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 external trigger inputs via included Berg or optional Lemo connector
- Offers optional IRIG-B input via included Berg or optional Lemo connector

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

Product Type	VisionLink F1 is a Camera Link 1-lane framegrabber for PCI Express.	
Memory	DDR3 (for additional FIFO / data buffering)	0 or 128 MB (see ordering options)
Data Rates	Peak / typical	400 MB/s in a PCIe Gen2 slot
Data Format (I/O)	Camera Link input; optional timecode input (IRIG-B)	
Camera Link Compliance	Version Modes Pixel clock rate Serial Control Connectors	2.0 Base 20-85 MHz Via API or serial DLL (9600 to 115,200 baud) C1-CC4, discretely programmable for steady-state, trigger, and timed pulse SDR26 for data and control
EU Compliance	CE RoHS WEEE	Contact EDT Contact EDT Contact EDT
PCI Express Compliance	PCIe version Direct memory access (DMA) Number of lanes Backpanel	PCIe 2 Yes 1 Half or full height
Noise	0 dB	
MTBF	TBD	
Triggering	Via CC lines, or external (opto-coupled) via Berg mated to SamTec MTMM 132-03-F-S-126 or Lemo mated to FGG.0B.307.CLAD.56.	
Connectors	Type One or two SDR26 Camera Link Berg Optional 7-pin Lemo	Purpose Data and control External trigger inputs and optional IRIG-B timecode input External trigger inputs and optional IRIG-B timecode input
Cabling	SDR26 standard Camera Link, purchased separately; consult EDT for options.	
Physical	Weight Dimensions	1.4 oz. typical 2.6 x 2.75 in. (with backpanel, 2.6 x 4.75 x 0.75 in.)
Environmental	Temperature (operating / non-operating) Humidity (operating / non-operating)	10° to 40° C / -20° to 60° C 1% to 90%, non-condensing at 40° C / 95%, non-condensing at 45° C
System and Software	System: Requires a PCIe 1-, 4-, 8-, or 16-lane slot that is not dedicated to display use only. Software: Drivers for Windows, Linux, MacOS, with included software development kit, examples, and utilities. See EDT website for detailed system requirements and supported OS versions.	

Ordering Options

Part number	Description
019-14836	Full height backpanel, 1 SDR
019-14852	Full height backpanel, 2 SDRs, 128 MB DDR3, timecode, Lemo
019-14853	Half height backpanel, 1 SDR
019-14854	Half height backpanel, 2 SDRs, 128 MB DDR3, timecode

International Distributors



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