

# VisionLink CLS

Camera Link simulator for PCI Express



## Description

The VisionLink CLS is a Camera Link 2.0 simulator that simulates base mode cameras at pixel clock rates of 20 to 85 MHz on a PCI Express Gen3 board.

Actual or generated images are output as Camera Link data, facilitating development and testing of imaging systems, cameras, and software.

Images are sent via DMA from host memory, as supported by the host computer. Internal counters can be used as an alternative source of image data.

Simulator setup is facilitated by text-based configuration scripts, easily modifiable to match the timing parameters of multiple camera models.

Line and frame triggering are supported over camera control lines.

C language libraries provide access to all simulator functions and allow the user to define appropriate responses to UART commands from the interface.

## Features

- Simulates Camera Link base mode cameras
- Supports pixel clock rates of 20 to 85 MHz
- Outputs actual or generated images as Camera Link data
- Allows internal counters to be used as alternative source of image data
- Supports DMA from host memory as supported by host
- Includes text-based configuration scripts modifiable for various camera models
- Supports line and frame triggering over camera control lines
- Allows emulation of camera UART commands

## Applications

Development and testing of...

- Cameras
- Image-processing software
- Image-processing hardware
- Imaging systems and applications

Record-playback systems

## Specifications

<b>Data Format</b>	Camera Link	
<b>Memory</b>	FIFO	Up to several lines of data
<b>Camera Link Compliance</b>	Version	2.0
	Modes	Base, dual base (Dual base outputs can use the same or different pixel clock sources.)
	Pixel clock rate	20–85 MHz
	Serial	9600 to 115,200 baud (via API, serial DLL, or loopback)
	CC1 - CC4 Connectors	Supported SDR26
<b>EU Compliance</b>	Contact EDT	
<b>PCI Express Compliance</b>	Form factor	Half-length, full-height
	PCIe version	Gen3
	Direct memory access (DMA)	Yes
	Number of lanes	8
<b>Noise</b>	0 dB	
<b>MTBF</b>	Estimated at 200,000 hours	
<b>Triggering</b>	Freerun or via CC lines	
<b>Connectors</b>	Two SDR26 Camera Link	For data and control
<b>Cabling</b>	Camera Link (purchased separately)	SDR-to-SDR or SDR-to-MDR
<b>Physical</b>	Weight	3.5 oz.
	Dimensions	With connectors and backpanel, 4.75 x 5.0 x 0.75"; without, 4.0 x 4.625 x 0.5"
<b>Environmental</b>	Temperature (operating / non-operating)	10° to 40° C / -20° to 60° C
	Humidity (operating / non-operating)	1% to 90%, non-condensing at 40° C / 95%, non-condensing at 45° C
<b>Software</b>	Software is included for Windows and Linux; for versions, see edt.com.	

## Ordering Options

- VisionLink CLS: **Standard** options
- Camera Link cabling: Purchased separately

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