

PCI DV CLS

PCI digital video Camera Link simulation



Description

The PCI DV CLS is a Camera Link simulator that generates simulated image data. It uses an easily modified text-based configuration script that describes the timing parameters of the camera to be simulated.

C language libraries allow the user to define appropriate responses to UART commands from the framegrabber.

Known image data allows easy debug of framegrabber application code, and system debug when target camera is unavailable.

The PCI DV CLS does not include frame buffer memory; image data is DMA'd from host memory as required by the application. Alternatively, internal counters may be chosen as a source of image data.

Applications

Astronomy

Aerial mapping

Computer microscopy

Intelligent traffic systems

Manufacturing / inspection

Remote scientific monitoring

Medical and nuclear imaging

Image archiving

Machine vision

Multimedia

Security

Features

Camera Link simulator fills one PCI or PCI-X slot (32/64 bits, 33/66 MHz)

Simulates Camera Link digital cameras, base-mode and 32-bit medium-mode

Direct memory access (DMA) from host memory for image data

Supports data rates up to 220 MB/s, as supported by host

Allows emulation of camera UART commands

Supports triggering by line or frame from camera control lines

Supports Camera Link clock from 20 to 85 MHz in increments of 0.250 MHz

Internal counters may be chosen as alternate source of image data

Specifications

Product Type	PCI DV CLS is a PCI digital video Camera Link simulator.	
Memory	FIFOs for up to several lines of data; frame memory is not included	
Data Rates	Theoretical Typical	Up to 220 MB/s 190 MB/s or maximum supported by host
Camera Link Compliance	Modes supported Pixel clock rate Serial CC1 - CC4 Connectors	Base or medium – common configurations 20 to 85 MHz 9600 to 115,200 baud Discretely programmable for steady-state, trigger, and timed pulse Two (MDR 26-pin) for data and control
EU Compliance	CE RoHS WEEE	EMC directive 2004/108/EC and low voltage directive 73/23/EEC Contact EDT WEEE directive 2002/96/EC
PCI Compliance	PCI version Direct memory access (DMA) Clock rate / data width	PCI 2.3 (will work in a PCI-X slot) Yes 33 or 66 MHz / 32 bits
Noise	0 dB	
MTBF	Estimated at 150,000 hours	
Cabling	Cabling is purchased separately; consult EDT for options.	
Physical	Weight Dimensions	3.3 oz. typical 5.0 x 4.2 in.
Environmental	Temperature Humidity	Operating 10° to 40° C; extended -40° to 60° C (33 MHz bus only) Non-operating -20° 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 a PCI bus, 66 MHz or faster (33 MHz will work, but at reduced data rates). Software is included for Windows, Solaris, Linux, and Mac OS X and can be requested for VxWorks; for supported versions, see website.	

Support

EDT offers engineer-to-engineer customer support, from phone consultation to custom design of hardware, firmware, and software. Contact us for options and details.

Ordering Options

- Environmental: Extended temperature

Bold is default. Consult EDT for more options.

Contact

Engineering Design Team (EDT), Inc.
1100 NW Compton Drive, Suite 306
Beaverton, Oregon 97006
800-435-4320 / 503-690-1234 (phone)
503-690-1243 (fax)
www.edt.com / info@edt.com