



PMC DV FOX

PMC digital video fiber-optic framegrabber (Camera Link / AIA)



Description

The PMC DV FOX is a long-range fiber-optic framegrabber that provides high-resolution image capture for up to two Camera Link, LVDS, or RS422 cameras, at a distance of up to 10 km from the host.

The board pairs with EDT's RCX C-Link or RCX adapter module, which can convert data from most camera types to fiber-optic cable. Alternately, this fiber-optic interface may be incorporated in the camera.

The compact board fits in any PMC slot. Images are captured and displayed in real time, and camera speed, resolution, and number of buffers are limited only by host bandwidth and memory.

Provided with the board are drivers for supported operating systems and a software development kit that includes C language libraries, examples, utilities, image capture or display GUI, camera configuration files, and Camera Link standard DLL for camera control.

Features

- Fiber-optic framegrabber fills one PMC slot (32/64 bits, 33/66 MHz)
- Supports up to two cameras (Camera Link, LVDS, or RS422) via EDT's RCX or RCX C-Link adapter module
- Accepts images of any resolution; sends data directly to host via DMA
- Allows remote operation – camera can be located up to 10 km from host
- Provides electrical isolation of camera from host
- Provides onboard region-of-interest control
- Supports data rates up to 220 MB/s, as supported by host

Applications

- Astronomy
- Aerial mapping
- Computer microscopy
- Intelligent traffic systems
- Manufacturing / inspection
- Remote scientific monitoring
- Medical and nuclear imaging
- Image archiving
- Machine vision
- Multimedia
- Security

Specifications

Product Type	PMC DV FOX is a PMC digital video fiber-optic framegrabber; it is used typically with the RCX or RCX C-Link module.		
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 (with RCX C-Link module)	Modes supported Pixel clock rate Serial CC1 – CC4 For a list of tested cameras, see www.edt.com/pdvcl_cameras.html .	Base – common configurations 20 to 80 MHz Via API or serial DLL (9600 to 115,200 baud) Discretely programmable for steady-state, trigger, and timed pulse	
AIA Compliance (with RCX module)	Supports most AIA LVDS or RS422 cameras that provide line- and frame-valid signals and a continuous pixel clock. For a list of tested cameras, see www.edt.com/pcidv_cameras.html .		
EU Compliance	CE RoHS WEEE	Contact EDT RoHS directive 2002/95/EEC WEEE directive 2002/96/EC	
PCI Compliance	PCI version Direct memory access (DMA) Clock rate / data width	PCI 2.3 Yes 33 or 66 MHz / 32 bits	
PMC Compliance	P1386.1		
Laser Safety	Class 1		
Noise	0 dB		
MTBF	Estimated at 200,000 hours		
Transceivers	One or optional two (wavelength 850 nm or optional 1310 nm), with duplex LCs		
	Wavelength	Cable	Range at 1.25 Gb/s
	850 nm	62- μ MMF	300 meters
	850 nm	50- μ MMF	500 meters
	1310 nm	9- μ SMF	10 kilometers
Triggering	CC lines supported via fiber, or externally via connector (opto-coupled Berg or optional 7-pin Lemo – mate to FGG.OB.307.CLAD.56)		
Cabling	Cabling is purchased separately; consult EDT for options.		
Physical	Weight Dimensions	2.9 oz. typical 2.9 x 6 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 PMC 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

- Adapter module: See separate datasheets for RCX and RCX C-Link.
- Transceivers: **1 / 2 (850 / 1310 nm)**
- Triggering (external): 7-pin Lemo
- Environmental: Extended temperature

Bold is default. Consult EDT for more options.

Contact

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