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VisionLink RCX

Remote camera extender for Camera Link over fiber

Description

The VisionLink RCX is a remote extender for AIA Camera Link devices. It extends base mode Camera Link over fiber to exceed the limits of electrical cabling. Similar in size to a standard Camera Link connector, the extender supports data rates up to 255 MB/s and pixel clock rates of 20-85 MHz.

Two extenders combine to form a fiberoptic extension cord between the camera and an EDT or third-party Camera Link framegrabber. Through the Camera Link standard MDR26 (or, with an adapter, the SDR26) connector on each device, one extender attaches to the camera and the other to the framegrabber. A fiberoptic cable then connects the two extenders by the SFP transceiver on the back of each.

Triggering / serial is provided via Camera Link, or externally via an optional Lemo connector.

Features

- Extender adapts base mode Camera Link over fiber
- Attaches to the device's MDR26 connector, replacing Camera Link cables
- Joins with a second extender to form a fiberoptic extension cord
- Enables remote operation for distances beyond the limits of electrical cable
- Provides electrical isolation of camera from host
- Supports data rates of up to 255 MB/s
- Supports triggering / serial via Camera Link or externally via optional Lemo
- Supports the full Camera Link pixel clock range of 20-85 MHz (base mode)

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 RCX is a remote camera extender for base mode Camera Link over fiberoptic cable.				
Memory	FIFOs for up to several lines of data; no frame memory				
Data Rates	Base mode	Up to 255 MB/s			
Data Format (I/O)	Camera Link				
Camera Link Compliance	Version	2.0			
	Modes	Base			
	Pixel clock rate	20–85 MHz			
	Serial	9600 to 115,200 baud			
	Control	C1-CC4			
	Connector	One MDR26			
EU Compliance	CE	TBD			
	RoHS	TBD			
	WEEE	WEEE directive 2002/96/EC			
Laser Safety	Class 1 (for EDT-supplied transceivers)				
Noise	0 dB				
Transceiver	One fiberoptic SFP with duplex LC; standard wavelengths and cables include...				
	Wavelength	**Cable**	**Range at 1.25 Gb/s**	**Range at 2.5 Gb/s**	**Range at 3.125 Gb/s**
	850 nm	62-µ MMF	300 meters	150 meters	70 meters
	850 nm	50-µ MMF	500 meters	250 meters	150 meters
	1310 nm	9-µ SMF	10 kilometers	5 kilometers	4 kilometers
	For longer ranges (10 to 100+ kilometers): CWDM and bidirectional transceivers are available in various wavelengths; contact EDT.				
Triggering / Serial	Camera Link	CC1-CC4, SERTC, SERTFG			
	External triggering / auxiliary serial communication	Optional 7-pin Lemo ECG.0B.307.CLV; mate to FGG.0B.307.CLAD.56			
Power	Consumption	2 watts at 4.75 to 28 V DC			
	Supply	4.75 to 28 V DC			
	Connector (standard)	2-conductor Switchcraft 712RA; mate to Switchcraft 760K			
	Connector (optional)*	7-pin Lemo ECG.0B.307.CLV; mate to FGG.0B.307.CLAD.56			
	* The optional Lemo connector provides external control either for triggering and single serial, or for dual serial (one via Camera Link and one via an independent port).				
Cabling / Adapters	Cabling is purchased separately; consult EDT for options.				
	Fiber connection polish	Standard physical contact (PC)			
	Camera Link adapters (SDR-to-MDR and MDR-to-MDR)	Available for applications with special requirements			
Physical	Weight	4.1 oz. with a typical transceiver, or 3.5 oz. with no transceiver			
	Dimensions (add 2.2 in. for required 90° bend for LC)	2.4 x 1.6 x 0.75 in., excluding connectors and thumbscrews			
		3.3 x 1.6 x 0.75 in., including connectors and thumbscrews (screwed in)			
Environmental	Temperature (operating / non-operating)	TBD			
	Humidity (operating / non-operating)	TBD			
System and Software	Computer system requirements are framegrabber-dependent; for details, see the user's guide for your framegrabber.				
	Software for updating VisionLink RCX firmware using an EDT framegrabber is included with EDT framegrabber products.				

Ordering Options

Part number	Description
053-14947	Extender
053-15048	Extender, Lemo
037-14141	Transceiver, 1310 nm SFP
037-12657	Transceiver, 850 nm SFP

Contact

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