

VisionLink RCX

Remote camera extender over fiber for Camera Link, base mode



Description

The VisionLink RCX is a remote extender for Camera Link base mode over fiber. The camera can be tens to thousands of meters from the host, depending on cabling and transceivers.

Similar in size to a standard Camera Link connector, the extender supports data rates up to 255 MB/s and pixel clock frequencies of 20-85 MHz.

Two extenders combine to form a fiberoptic extension system 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 (tens to thousands of meters from host computer)
- 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
- Manufacturing / inspection
- Machine vision / robotics
- Security / surveillance
- Scanning / archiving
- Remote sensing

Specifications

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	CC1-CC4		
	Connector	One MDR26		
EU Compliance	TBD			
Laser Safety	Class 1 (for EDT-supplied transceivers)			
Noise	0 dB			
Transceiver	Each extender has 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
	850 nm	62- μ MMF	300 meters	150 meters
	850 nm	50- μ MMF	500 meters	250 meters
	1310 nm	9- μ SMF	10 kilometers	5 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	Optional 7-pin Lemo ECG.OB.307.CLV; mate to FGG.OB.307.CLAD.56		
Power	Consumption	Less than 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.OB.307.CLV; mate to FGG.OB.307.CLAD.56		
Cabling / Adapters	Cabling is purchased separately; consult EDT for options.		Standard physical contact (PC)	
	Fiber connection polish	Available for applications with special requirements		
	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	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	Component	Temperature (operating / non-operating)		
	VisionLink RCX (with no transceivers)	-40 to +60° C / -40 to +60° C		
	Transceiver, 850nm	-20 to +85° C / -40 to +85° C		
	Transceiver, 1310nm	0 to +70° C / -40 to +85° C		
System and Software	Computer system requirements are framegrabber-dependent; for details, see the user's guide for your framegrabber. Software for updating extender firmware using an EDT framegrabber is included with EDT framegrabber products.			

Ordering Options

Part number(s)	Description
053-14947	Extender
053-15048	Extender + Lemo
037-12657	Transceiver, 850 nm SFP
037-15346	Transceiver, 1310 nm SFP+

Bold is default. Ask about custom options.