

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.



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