



# RCX C-Link

Remote camera extender for Camera Link to fiber



## Description

The RCX C-Link is a remote camera extender module that adapts an LVDS or RS422 signal from a digital camera to fiber-optic cable. Cameras can be located up to 10 km from the host.

The module—similar in size to a Camera Link cable connector—attaches directly to the MDR-26 connector on the camera or framegrabber.

An LC duplex fiber-optic cable plugs into the module to allow communication with a fiber-optic framegrabber, such as EDT's FOX series.

Two modules can be used to form a fiber-optic extension cord, with one module at the camera and the other at the framegrabber (from EDT or a third party). A medium- or full-mode extension cord uses additional, specially-configured module pairs.

## Features

- Module adapts Camera Link data to a fiber-optic framegrabber
- Attaches to the camera's MDR-26 connector, replacing Camera Link cables
- Allows remote operation – camera can be located up to 10 km from host
- Provides electrical isolation of camera from host
- Supports data rates up to 240 MB/s (base mode) or up to 750 MB/s (full mode)
- Can join with a second RCX C-Link module to form a fiber-optic extension cord

## 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	RCX C-Link is a remote camera extender (Camera Link-to-fiber) adapter module for digital video framegrabbers.			
Memory	FIFOs for up to several lines of data; frame memory is not included			
Data Rates	Fiber operates at 1.25 or 2.5 Gb/s, passing video data at up to 120 or 240 MB/s for base mode, or up to 750 MB/s for full mode			
Camera Link Compliance	Modes supported	Base (one module) or medium or full (two modules – specially configured)		
	Pixel clock rate	20 to 80 MHz		
	Serial	9600 to 115,200 baud		
	CC1 - CC4	Discretely programmable for steady-state, trigger, and timed pulse		
	Connectors	One (MDR 26-pin) for data and control		
EU Compliance	CE	EMC directive 2004/108/EC and low voltage directive 73/23/EEC		
	RoHS	Contact EDT		
	WEEE	WEEE directive 2002/96/EC		
Laser Safety	Class 1			
Noise	0 dB			
Transceivers	One (wavelength 850 nm or optional 1310 nm), with duplex LC			
	<b>Wavelength</b>	<b>Cable</b>	<b>Range at 1.25 Gb/s</b>	<b>Range at 2.5 Gb/s</b>
	850 nm	62- $\mu$ MMF	300 meters	150 meters
	850 nm	50- $\mu$ MMF	500 meters	250 meters
	1310 nm	9- $\mu$ SMF	10 kilometers	5 kilometers
Triggering / Serial	Via Camera Link, or externally via connector (optocoupled and optional 7-pin Lemo – mate to FGG.0B.307.CLAD.56)			
Connectors	Standard 2-pin (for power only) or 7-pin Lemo for power, external triggering, and external serial			
Cabling	Adapter cable	Purchased separately	Use if obstacles prevent the module from plugging into the camera.	
	Fiber	Purchased separately	Consult EDT about options.	
	Sync	For full mode only	40 MHz for camera input of 20 to 40 MHz	
			66.6 MHz for camera input of 41 to 66.6 MHz	
			80 MHz for camera input of 66.7 to 80 MHz	
Power	Less than 3 W at 5 to 18 V			
Physical	Weight	4 oz. typical		
	Dimensions	2.4 x 1.6 x 0.75 in. (requires an additional 2.2 in. for a 90° bend for the LC)		
Environmental	Temperature	Operating 10° to 40° C; extended -40° to 60° C (33 MHz bus only)		
		Non-operating -20° to 60° C		
	Humidity	Operating 20% to 80%, non-condensing at 40° C		
		Non-operating 95%, non-condensing at 40° C		
System and Software	For details on system requirements and software, see specifications for your framegrabber.			

## 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

- Camera Link mode: Base / medium / full
- Transceivers: **850** / 1310 nm
- Triggering (external): 7-pin Lemo
- Cabling: See options above
- Power adapter: **110** / 220 V
- Environmental: Extended temperature

**Bold** is default. Consult EDT for more options.

## Contact

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