edt
a HEICO company

RCX

Remote camera extender for AIA (LVDS or RS422) to fiber

Features

- Module adapts LVDS / RS422 data to a fiber-optic framegrabber
- Accepts images of any resolution; sends data to a fiber-optic framegrabber to send to host via DMA
- Allows remote operation – camera can be located up to 10 km from host
- Provides electrical isolation between camera and host
- Supports data rates up to 125 MB/s
- Can join with a second RCX module to form a fiber-optic extension cord

Description

The RCX 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 has a 68-pin connector to support a wide range of AIA cameras.

Two modules can be used to form a fiber-optic extension cord, with one module at the camera and the other at the framegrabber.

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 is a remote camera extender (AIA-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 1.33 Gb/s, passing video data at up to 125 MB/s.		
AIA Compliance	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 Contact EDT WEEE directive 2002/96/EC
Laser Safety	Class 1		
Noise	0 dB		
Transceivers	One (wavelength 850 nm or optional 1310 nm), with duplex LC		
	Wavelength	**Cable**	**Range at 1.33 Gb/s**
	850 nm	62-µ MMF	300 meters
	850 nm	50-µ MMF	500 meters
	1310 nm	9-µ SMF	10 kilometers
Triggering / Serial	Via CC lines, or externally via connectors (opto-coupled and optional 7-pin Lemo — mate to FGG.0B.307.CLAD.56)		
Power	Less than 5 W at 24 V		
Cabling	Cabling is purchased separately; consult EDT for options.		
Physical	Weight Dimensions		10.1 oz. typical 4.5 x 2.7 x 1.0 in. (requires an additional 2.2 in. for a 90° bend for the LC)
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	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

- Signal levels: **LVDS** / RS422
- Triggering (external): 7-pin Lemo
- Transceivers: **850** / 1310 nm
- Power adapter: **110** / 220 V
- Environmental: Extended temperature

Bold is default. Consult EDT for more options.

Contact

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