

RCX AIA (LVDS / RS422)

Remote camera extender for AIA-formatted data over fiber



Description

The RCX AIA (LVDS / RS422) is a remote camera extender unit which adapts LVDS / RS422, 8 to 16 bits per pixel, over fiber – supporting data rates up to 130 MB/s.

On the back of the unit, a 68-pin connector plugs directly into the back of an AIA camera. On the front, a transceiver links to fiber which links to a framegrabber in the host computer, up to 10 kilometers from the camera. The fiber provides electrical isolation between camera and host.

A fiberoptic framegrabber – for example, EDT PCI DV FOX – requires only one RCX AIA (at the camera end). A standard non-fiber framegrabber requires two units: one at the camera end and the other at the host end.

The RCX AIA contains an FPGA which can be updated to accommodate additional AIA camera types.

Features

- Unit adapts AIA (LVDS / RS422) data, 8 to 16 bits per pixel, over fiber
- Supports data rates up to 130 MB/s
- Attaches via a 68-pin connector to the back of almost any AIA camera
- Can be used with a fiberoptic or a standard framegrabber
- Allows remote operation - camera can be up to 10 kilometers from host
- Provides electrical isolation between camera and host

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

FPGA / flash memory	Can be updated using a program on a host computer operating through an appropriate EDT framegrabber.	
Data Rates	Supports data rates up to 130 MB/s.	
Data Format (I/O)	AIA (LVDS / RS422)	
Laser Safety	Class 1	
Transceiver	One fiberoptic LC duplex. Available wavelengths and cables include 850 nm and 1310 nm.	
Power	Consumption Supply	TBD 10 to 32V DC, 4 watts max; EDT provides an AC mains power supply connector Switchcraft 712A, center positive.
Connectors / Cabling	Camera connector Cabling	AMP 787169-7 high-density 68-pin connector for LVDS or RS422 data Purchased separately; consult EDT for options.
Physical	Weight Dimensions	10 oz. typical 4.75 x 2.75 x 1.00 in.
Environmental	Temperature (operating / non-operating) Humidity (operating / non-operating)	0° to 40° C / -20° to 60° C (extended temperature available) 20% to 80% non-condensing at 40° C / 95% non-condensing at 40° C
System and Software	Computer system requirements are framegrabber-dependent; for details, see the user's guide for your framegrabber. Software for updating this product's firmware (when used with an EDT framegrabber) is included with EDT framegrabber products.	

Ordering Options

- I/O: AIA **LVDS** / RS422
- Transceiver: **850** / 1300 nm
- Environmental: Extended temperature

Bold is default. **Ask about custom options.**