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	TBD
	Supply	10 to 32V DC, 4 watts max; EDT provides an AC mains power supply connector Switchcraft 712A, center positive.
Connectors / Cabling	Camera connector	AMP 787169-7 high-density 68-pin connector for LVDS or RS422 data
	Cabling	Purchased separately; consult EDT for options.
Physical	Weight	10 oz. typical
	Dimensions	4.75 x 2.75 x 1.00 in.
Environmental	Temperature (operating / non-operating)	0° to 40° C / -20° to 60° C (extended temperature available)
	Humidity (operating / non-operating)	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.**