



Frame grabbers

# Matrox Solios eCL/XCL-B >>

Entry-level Camera Link® frame grabber.



## Key features

- > x1 PCIe™ (eCL) or PCI-X® (XCL) low profile¹ half-length card
- > handles one Base Camera Link® configuration²,³
- > provides PoCL (Power over Camera Link®) with SafePower
- > acquires at up to 85 MHz⁴
- > 64 MB acquisition buffer
- > captures from frame and line scan cameras
- > performs complete image reconstruction from multi-tap cameras³
- > serial communication port mapped as PC COM port
- > support for rotary encoders with quadrature output
- > programmed using Matrox Imaging Library (MIL) sold separately
- > supports 32/64-bit Microsoft® Windows® XP/Vista®/7 and 32/64-bit Linux®

## Cost-optimized and value-packed design

The Matrox Solios eCL/XCL-B is a Camera Link® frame grabber for cost sensitive applications. Its acquisition capabilities and PCI Express® (PCIe™) or PCI-X® bus interface make the Matrox Solios eCL/XCL-B an excellent match for entry-level cameras.

## Versatile Camera Link® interface



Matrox Solios eCL/XCL-B operates as a single-Base Camera Link® frame grabber featuring Power over Camera Link® (PoCL) with SafePower. With an acquisition speed of up to 85 MHz⁴ and multi-tap support including complete image reconstruction³, the Matrox Solios eCL/XCL-B is able to handle the most popular entry-level industrial or scientific area and line scan cameras. It can also transparently convert between monochrome and packaged/planar RGB color spaces enabling optimum representation of image data for processing and/or display freeing valuable host resources.

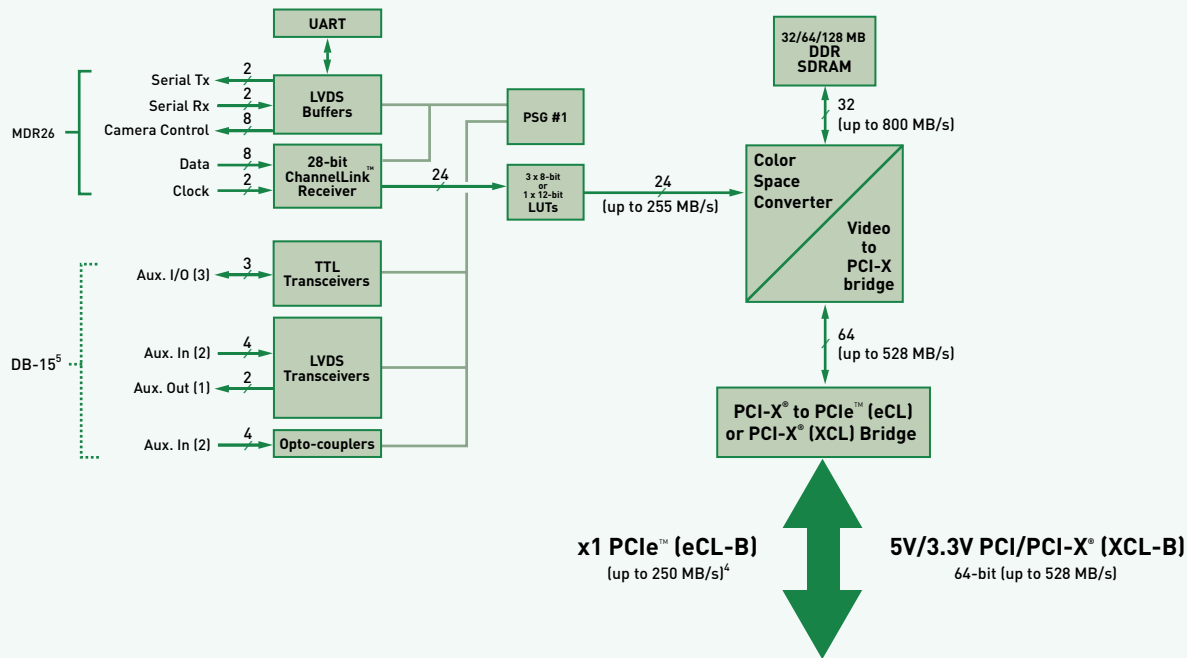
## Choice of high-performance host bus interfaces



One lane (x1) PCIe™ and PCI-X® are the interfaces used to connect to the host PC on the Matrox Solios eCL-B and Matrox Solios XCL-B frame grabber boards respectively. PCIe™ is the follow-on to conventional PCI and PCI-X® whereas PCI-X® is a backwards-compatible enhancement to conventional PCI. Both the x1 PCIe™ and PCI-X® implementations offers the right balance of performance and cost.



## Matrox Solios eCL/XCL-B



### Field-proven application development software

Matrox Solios eCL/XCL-B is supported by the Matrox Imaging Library (MIL), a comprehensive collection of software tools for developing industrial imaging applications. MIL features interactive software and programming functions for image capture, processing, analysis, annotation, display and archiving. These tools are designed to enhance productivity, thereby reducing the time and effort required to bring your solution to market. Refer to the MIL datasheet for more information.

### Specifications

#### Hardware

- x1 PCIe™ card or PCI/PCI-X® card with universal 64-bit card edge connector (64-bit 33/66 MHz 5V/3.3V PCI and 64-bit 66/100/133 MHz PCI-X®)
- 64 MB of 100 MHz DDR SDRAM for acquisition
- handles a single Camera Link® Base port<sup>2,3</sup>
- PoCL (Power over Camera Link®) with SafePower support
- Channel Link™ speed of up to 85 MHz<sup>4</sup>
- supports frame and line-scan video sources
- full tap reconstruction from multi-tap sources<sup>3</sup>
- one 4K x 12-bit or three 256 x 8-bit LUTs
- three TTL configurable auxiliary I/Os
- two LVDS configurable auxiliary inputs
- one LVDS configurable auxiliary outputs
- two opto-isolated configurable auxiliary inputs
- serial communication port mapped as a PC COM port

### Dimensions and environmental information

- 16.8 L x 6.4 H x 1.57 W cm (6.6" x 2.5" x 0.62") from bottom edge of goldfinger to top edge of board and without bracket
- operating temperature: 0°C to 55° C (32° F to 131° F)
- relative humidity: up to 95% (non-condensing)
- FCC class A
- CE class A
- RoHS-compliant

### Software drivers

- Matrox Imaging Library (MIL) drivers for 32/64-bit Microsoft® Windows® XP/Vista®/7
- MIL drivers for 32/64-bit Linux®

## Ordering Information

### Hardware

Part number	Description
SOL 6M CLB*	Single-Base up to 85 MHz Camera Link® PCI-X® frame grabber with 64 MB DDR SDRAM.
SOL 6M CLB E*	Single-Base up to 85 MHz <sup>4</sup> Camera Link® x1 PCIe™ frame grabber with 64 MB DDR SDRAM.

### Software

Refer to MIL datasheet.

### Cables

Camera Link® cables available from camera manufacturer: 3M Interconnect Solutions ([www.3m.com](http://www.3m.com)), Intercon1 ([www.nortechsys.com/intercon](http://www.nortechsys.com/intercon)) or other third parties. Cables for cable adapter boards available from third parties.

#### Notes:

1. With optional low profile bracket.
2. Refer to Camera Link® specification for more information.
3. Maximum of two zones, up to three taps and excludes time multiplexing.
4. x1 PCIe™ versions support a maximum acquisition rate of 250 MB/s under continuous use.
5. Not available with optional low profile bracket.

**Corporate headquarters:**

**Matrox Electronic Systems Ltd.**  
1055 St. Regis Blvd.  
Dorval, Quebec H9P 2T4  
Canada  
Tel: +1 (514) 685-2630  
Fax: +1 (514) 822-6273

**For more information, please call: 1-800-804-6243 (toll free in North America) or (514) 822-6020  
or e-mail: [imaging.info@matrox.com](mailto:imaging.info@matrox.com) or <http://www.matrox.com/imaging>**

**matrox<sup>®</sup>**

All trademarks by their respective owners are hereby acknowledged. Matrox Electronic Systems, Ltd. reserves the right to make changes in specifications at any time and without notice. The information furnished by Matrox Electronic Systems, Ltd. is believed to be accurate and reliable. However, no responsibility license is granted under any patents or patent rights of Matrox Electronic Systems, Ltd. Windows and Microsoft are trademarks of Microsoft Corporation. Printed in Canada, 2010-07-30 **\$IE-5403-B**