



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
- > available software is sold separately and includes Matrox Imaging Library (MIL)/ActiveMIL, MIL-Lite/Active MIL-Lite, Matrox Inspector⁵
- > supports Microsoft® Windows® XP⁶ and Linux⁵,⁷

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.

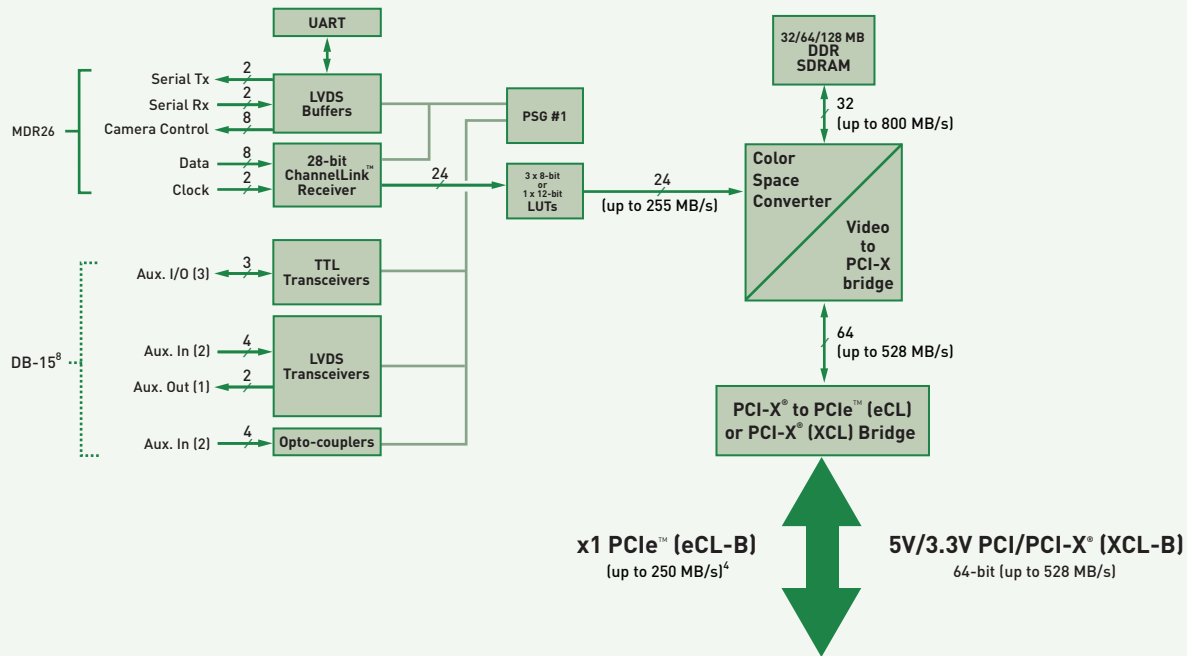
Choice of high-performance host bus interfaces



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



Software

Software support is available for Windows® XP⁴ and Linux^{5,7}, and consists of Matrox Imaging Library (MIL)/ ActiveMIL or MIL-Lite/ActiveMIL-Lite development toolkits for creating custom applications. Matrox Solios eCL/XCL-B is also supported by Matrox Inspector interactive Windows® imaging software.

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^{2,3}
- PoCL (Power over Camera Link®) with SafePower support
- Channel Link™ speed of up to 85 MHz⁴
- supports frame and line-scan video sources
- full tap reconstruction from multi-tap sources³
- 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 Environment

- host driver for Microsoft® Windows® XP⁶ and Linux^{5,7}
- programmed under Windows® using MIL/MIL-Lite ('C' DLLs) with Microsoft® Visual C++® (.NET 2003)
- programmed under Windows® using ActiveMIL/ActiveMIL-Lite (ActiveX controls) with Microsoft® Visual Basic® .NET 2003 or Visual C++® .NET 2003
- programmed under Linux^{5,7} using MIL/MIL-Lite with GNU Compiler Collection (GCC)

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 and cable adapter board.
SOL 6M CLB E*	Single-Base up to 85 MHz ⁴ Camera Link® x1 PCIe™ frame grabber with 64 MB DDR SDRAM and cable adapter board.

Software

Part number	Description
MIL LITE 8 WIN	MIL-Lite board control library for Microsoft® Windows® XP ⁶ (see MIL-Lite brochure for more details).
MIL 8 WIN P or U	Matrox Imaging Library (MIL) for Microsoft® Windows® XP ⁶ (see MIL brochure for more details).
MIL LITE 8 LNX ^{5,7}	MIL-Lite board control library for Linux ^{5,7} (see MIL-Lite brochure for more details).
MIL 8 LNX U ^{5,7}	Matrox Imaging Library (MIL) for Linux ^{5,7} (see MIL brochure for more details).
INSPECTOR 8 P or U	Matrox Inspector interactive Windows® imaging software ⁵ .

Cables

Camera Link® cables available from camera manufacturer, 3M Interconnect Solutions (www.3m.com), Intercon1 (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. Contact local representative or Matrox Imaging Sales for availability.
6. 32-bit edition.
7. Contact local representative or Matrox Imaging Sales for supported distribution.
8. 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 or <http://www.matrox.com/imaging>**

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