



Frame grabbers

Matrox Solios eCL/XCL-B >>

Entry-level Camera Link® frame grabber.



Key features

- > x1 PCIe™ (eCL) or PCI-X® (XCL) low profile half-length card
- > handles one Base Camera Link® configuration^{1,2}
- > acquires at up to 85 MHz³
- > 64 MB acquisition buffer
- > captures from frame and line scan cameras
- > performs complete image reconstruction from multi-tap cameras²
- > 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 Inspector⁴
- > supports Microsoft® Windows® XP⁵ and Linux^{6,6}

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. With an acquisition speed of up to 85 MHz³ and multi-tap support including complete image reconstruction², 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

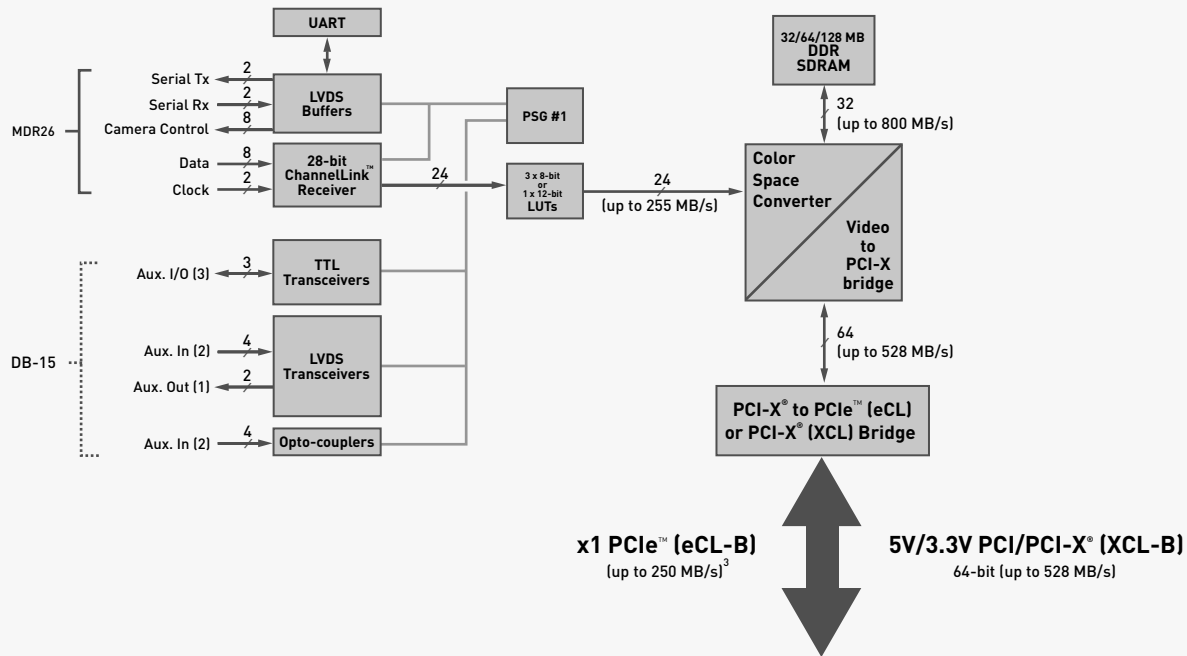


One lane (x1) PCIe™ and PCI-X® are the interfaces used to connect to the host PC on the Matrox Solios eCL-B and Matrox Solios XCL-B frame grabber boards respectively. PCIe™ is the follow-on to conventional PCI and PCI-X® whereas PCI-X® is a backwards-compatible enhancement to conventional PCI. Both the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



Preliminary

Matrox Solios eCL/XCL-B



Software

Software support is available for Windows[®] XP⁵ and Linux^{4,6}, 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^{1,2}
- Channel Link[™] speed of up to 85 MHz³
- supports frame and line-scan video sources
- full tap reconstruction from multi-tap sources²
- 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

Preliminary

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 pending
- CE class A pending
- RoHS-compliant

Software Environment

- host driver for Microsoft® Windows® XP⁵ and Linux^{4,6}
- 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^{4,6} 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 ³ 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 ⁵ (see MIL-Lite brochure for more details).
MIL 8 WIN P or U	Matrox Imaging Library (MIL) for Microsoft® Windows® XP ⁵ (see MIL brochure for more details).
MIL LITE 8 LNX ^{4,6}	MIL-Lite board control library for Linux ^{4,6} (see MIL-Lite brochure for more details).
MIL 8 LNX U ^{4,6}	Matrox Imaging Library (MIL) for Linux ^{4,6} (see MIL brochure for more details).
INSPECTOR 8 P or U	Matrox Inspector interactive Windows® imaging software ⁴ .

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. Refer to Camera Link® specification for more information.
2. Maximum of two zones, up to four taps and excludes time multiplexing.
3. x1 PCIe™ versions support a maximum acquisition rate of 80MHz under continuous use.
4. Contact local representative or Matrox Imaging Sales for availability.
5. 32-bit edition.
6. Contact local representative or Matrox Imaging Sales for supported distribution.

Preliminary

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>

matrox

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, 2006-12-12 **SIE-5403-B**