

XTIUM-CLHS PX4

Frame Grabber on PCIe Gen2 platform



Features

- AIA's CLHS Interface – Next generation image acquisition interface
- PCI Express x4, Gen2 half-length board
- Acquisition rate up to 2.1GB/sec
- Seamless Data Forwarding for distributed image processing across multiple systems
- Multi-board synchronization for expanded resolution applications
- Host transfers up to 1.7GB/sec
- Field proven CX4 cabling
- Supports Microsoft® Windows 7 and Windows 8 64/32-bit.
- ROHS compliant

Next Generation Frame Grabber on PCIe Gen2 platform

Building on the field proven capability of Teledyne DALSA's Xcelera frame grabber series, the Xtium™-CLHS PX4 is based on industry standard PCI Express™ Gen 2.0 expansion bus to deliver high speed image acquisition and image transfer to the host memory. Xtium-CLHS uses industry standard CX4 cable to delivery up to 2.1 GB/s of image acquisition over a single cable to go beyond 15M and host transfer speeds of up to 1.7GB/sec - all in a compact, half-length, single slot solution. As the latest member of the Xtium series of frame grabbers, the Xtium-CLHS features high-performance on-board, Data Transfer Engine (DTE) to deliver maximum bandwidth without the need for specialized motherboards or chipsets. By enabling maximum sustained throughput and ready-to-use image data, the Xtium-CLHS PX4 minimizes CPU usage and improves processing times for host applications. In addition, the Xtium series has been engineered with enhanced memory architecture to enable cameras to operate at their maximum frame/line rate.

Fully Supported By Sapera™ Vision SDK

The Xtium-CLHS is fully supported by Sapera Vision SDK packages and tools like CamExpert – an intuitive camera configuration utility.

Sapera Essential – offers over 450 image processing and analysis functions. In addition, the Sapera Essential standard processing tool run-time license is offered at no additional charge when combined with Teledyne DALSA frame grabbers. This software run-time license includes access to image processing functions, area based (normalized correlation based) template matching tool, blob analysis and lens correction tool.

Sapera™ Nitrous accelerates Sapera Essential applications by providing seamless support for graphical processing units (GPU) and multi-core CPU optimization (MCO).

Sapera™ Architect Plus gives system integrators and industrial vision automation specialists a user-friendly, non-programming graphical environment to quickly prototype and test drive application specific imaging tools within Sapera Essential and Sapera Nitrous.

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Xtium-CLHS Specifications*

Card	<ul style="list-style-type: none"> • Half-length PCIe x4 card • PCIe Rev 2.0 compliant
Acquisition	<ul style="list-style-type: none"> • Area scan and line scan • Acquisition rate up to 2.1 GB/s
CLHS	<ul style="list-style-type: none"> • CLHS 1 to 7 lane configurations • Single CX4 cable input from camera • Support for CLHS acquisition trigger modes 1 through 4
Feature	<ul style="list-style-type: none"> • Image Cropping • Horizontal and vertical image flip • Data forwarding across multiple boards and PC for distributed image processing • Multiple board synchronization grab from multiple camera and multiple frame grabber in one seamless image buffer.
Resolution	<ul style="list-style-type: none"> • Horizontal size: 64 bytes to 16 Kbytes • Vertical size: 1 line to 16 million lines
On-Board Memory Buffer	<ul style="list-style-type: none"> • 512 MB image buffer
Pixel Format	<ul style="list-style-type: none"> • Mono8, Mono10, Mono12 and Mono16
Controls	<ul style="list-style-type: none"> • Comprehensive event notification • Timing control logic for camera trigger, line scan direction and strobe signals • Camera control through GenCP/SFNC
Connectors	<ul style="list-style-type: none"> • 1 x CX4 thumbscrew connector for incoming data from camera • DH60-27P for Board Trigger, Strobe and General I/Os (main bracket) • 16-pin connector on the board for Board Sync and/or other usage
LED	<ul style="list-style-type: none"> • 3 LEDs to report error conditions and acquisition status • LED to follow CLHS standard
Certification	<ul style="list-style-type: none"> • FCC Class A • CE • EU & China RoHS
Software	<ul style="list-style-type: none"> • Supported by Sopera Vision SDK packages <ul style="list-style-type: none"> ◦ Sopera LT and CamExpert ◦ Sopera Essential • Microsoft Windows 7 and Windows 8 32/64-bit.
Temperature and storage	<ul style="list-style-type: none"> • 10°C (50°F) to 50°C (122°F) • Relative Humidity – up to 90% (non-condensing)
Dimension	<ul style="list-style-type: none"> • 11.11cm (4.375") length x 9.96cm (3.9240") height

* Specifications subject to change without prior notice