TELEDYNE DALSA
Everywhereyoulook™

XTIUM-CLHS PX8

Frame Grabber on PCIe Gen2 platform

Features

- Half-length PCI Express Gen 2.0 x8 Board
- Camera Link HS compliant
- Supports acquisition rates up to 2.1 GB/sec
- Host transfers up to 3.2 GB/sec
- User programmable 3x3 filter
- Data forwarding for distributed image processing
- Field proven CX4 cabling
- Microsoft® Windows® 7, 8 (32/64-bit), WOW64 and Linux[1]
- Fully supported by Sapera Vision Software SDKs
- FCC, CE and ROHS compliant

[1]Contact Teledyne Dalsa sales for availability

Feature Rich CLHS Acquisition and Processing

Building on the field proven capability of Teledyne DALSA's Xcelera frame grabber series, the Xtium™-CLHS PX8 is based on AIA's CameraLink HS standard and uses 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 3.2GB/sec - all in a compact, half-length, single slot solution.

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 PX8 minimizes CPU usage and improves processing times for host applications. In addition, the Xtium series has been engineered with enhanced memory to meet the ever-increasing image resolution and faster frame rates of today's camera technology.

Free Acquisition and Control Software Libraries

Xtium series of frame grabbers are fully supported by Sapera LT. Sapera LT is an image acquisition and control software development toolkit (SDK) for Teledyne DALSA'S cameras and frame grabbers. Hardware independent in nature, Sapera LT offers a rich development ecosystem for machine vision OEMs and system integrators. Sapera LT supports image acquisition from cameras and frame grabbers based on standards including GigE Vision™, CameraLink® and CameraLink HS™.

Fully Supported By Sapera™ Vision SDK

When combined with Xtium series of frame grabbers, the standard Sapera Processing run-time licenses are offered at no additional charge for Sapera. Sapera Processing is at the heart of Sapera Vision Software delivering a suite of image processing and analysis functions. These functions include over 400 image processing primitives, barcode tool, pattern matching tools both area-based and edge-based, OCR, color, blob analysis, measurement and calibration tools for perspective and lens correction. The standard tools run-time license includes access to image processing functions, area based (normalized correlation based) template matching tool, blob analysis and lens correction tool.

TELEDYNE DALSA
Everywhereyoulook™

XTIUM-CLHS PX8

Frame Grabber on PCIe Gen2 platform

Xtium-CLHS Specifications*

Card	• Half-length PCIe x8 card • PCIe Rev 2.0 compliant
Acquisition	• Area scan and line scan • Acquisition rate up to 2.1 GB/s
CLHS	• CLHS 1 to 7 lane configurations • Single CX4 cable input from camera • Support for CLHS acquisition trigger modes 1 through 4
Feature	• Image Cropping • User programmable 3x3 filter • 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
Resolution	• Horizontal size: 64 bytes to 16 Kbytes • Vertical size: 1 line to 16 million lines
On-Board Memory Buffer	• 1024 MB image buffer
Pixel Format	• Mono8, Mono10, Mono12 and Mono16
Controls	• Comprehensive event notification • Timing control logic for camera trigger, line scan direction and strobe signals • Camera control through GenCP/SFNC
Connectors	• 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	• 3 LEDs to report error conditions and acquisition status • LED to follow CLHS standard
Certification	• FCC Class A • CE • EU & China RoHS

Software	• Supported by Sapera Vision SDK packages
	  ○ Sapera LT and CamExpert
	  ○ Sapera Essential
	• Microsoft Windows 7, Windows 8/8.1, Windows 10 32/64-bit, WOW64 and Linux[1] (Kernel ver. 3.13)

Temperature and storage	• 10°C (50°F) to 50°C (122°F) • Relative Humidity – up to 90% (non-condensing)
Dimension	• 11.11cm (4.375") length x 9.96cm (3.9240") height

• Specifications subject to change without prior notice

[1]Contact Teledyne Dalsa sales for availability

STEMMER IMAGING Head Office
Gutenbergstraße 9 - 13, D-82178 Puchheim
Phone: +49 89 80902-0, info@stemmer-imaging.de

STEMMER IMAGING