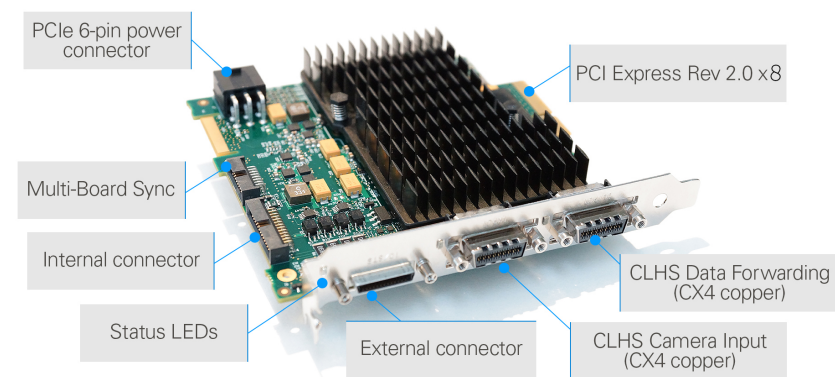# Xtium CLHS PX8 Key Features

- 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 Linux1
- Fully supported by Sapera Vision Software SDKs
- FCC, CE and ROHS compliant

PCIe 6-pin power connector

PCI Express Rev 2.0 x8

Multi-Board Sync

Internal connector

CLHS Data Forwarding (CX4 copper)

Status LEDs

External connector

CLHS Camera Input (CX4 copper)

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
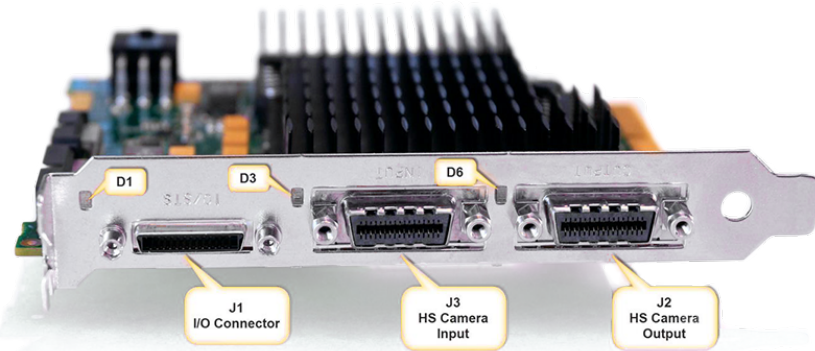
acquisition and image transfer to the host memory. Xtium-CLHS uses industry standard CX4 cable to delivery up to 2.1 GB/s of image acquisition over a single cable to go beyond 15m and host transfer speeds of up to 3.2 GB/sec - all in a compact, half-length, single slot solution.

Free Acquisition and Control Software Libraries

The Xtium and Xtium2 series of frame grabbers are fully supported by Sapera LT SDK. Sapera LT SDK is an image acquisition and control software development toolkit (SDK) for Teledyne DALSA'S cameras and frame grabbers. Hardware independent by nature, Sapera LT offers a rich development ecosystem for machine vision OEMs and system integrators. Sapera LT SDK supports image acquisition from cameras and frame grabbers based on
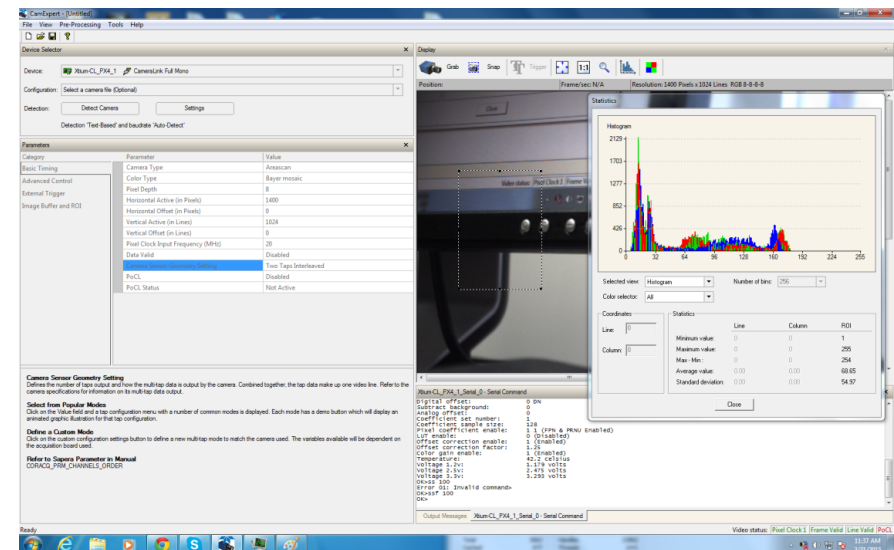
standards including GigE Vision™, Camera Link®, CoaXPress®, and Camera Link HS™.
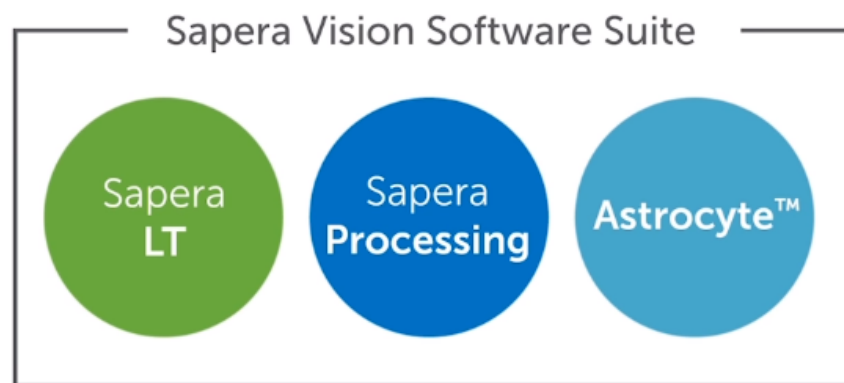
Fully supported by Sapera™ vision SDK

When combined with a compatible Teledyne DALSA frame grabber, standard Sapera Processing run-time licenses are offered at no additional charge. 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 tools, pattern matching tools (both area-based and edge-based), OCR, color and 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 tools, blob analysis, and lens correction tools.

Specifications

Part Number	OR-Y8S0-XPX70

Board Type	PCIe
Host Bus	PCI Express Gen3 x8
Board Interface	Camera Link HS
Connectors	Data input: 1 x CX4 thumbscrew, AOC ready Data forward: 1 x CX4 thumbscrew, AOC ready Camera control I/O: 1 x DH60-27P (main bracket), 1 x 26-pin shrouded header Multi-board sync: 1 x 16-pin shrouded connector
Camera Format	CLHS Rev 1.0 1, 4, and 7 lane configurations
Transmission Rate	7 x 3.25 Gb/s or 7 x 5.0 Gb/s
Bits Per Pixel	Mono: 8, 10, or 12-bit/pixel; RGB: 8-bit/pixel/color
Camera Control	External trigger input, strobe out, quadrature encoder, multi-board sync
GPIO	4x opto-couple (2 shared with external trigger) 8 LVTTL outputs (1 shared with strobe)
Frame Buffer	1024 MB
Features	Data forwarding, board sync lookup table, user programmable 3 x 3 filter, Active Optical Cables (AOC) fiber cables ready
Software	Sapera LT SDK, Sapera Vision Software
OS Support	Windows 7 (32-bit)*, Windows 7 (64-bit)*, Windows 8 (32-bit), Windows 8 (64-bit), Windows 10 (32-bit), Windows 10 (64-bit), Linux (64-bit), WoW64 * Contact DALSA sales for more details

Input Camera Port   up to 7 x 6.25 Gbps