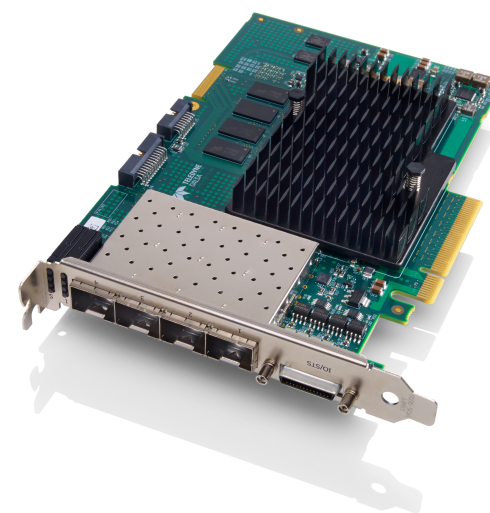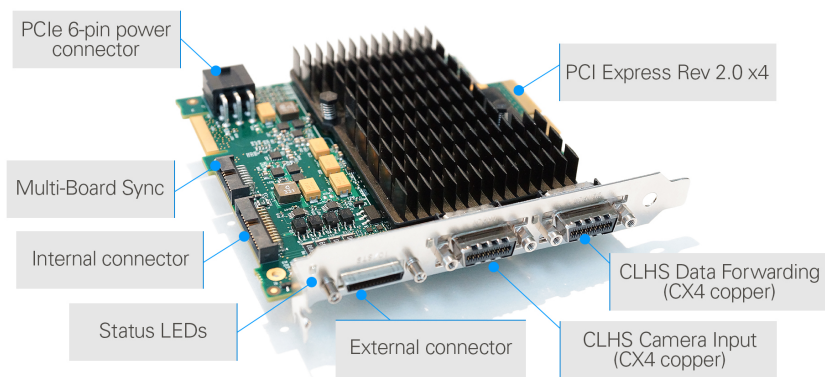# Advanced CLHS Acquisition and Processing

Building on the field proven capability of Teledyne DALSA's Xcelera frame grabber series, the Xtium™-CLHS PX4 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 1.7 GB/sec - all in a compact, half-length, single slot solution.

Great Features to Make your Job Easier

PCIe 6-pin power connector

PCI Express Rev 2.0 x4

Multi-Board Sync

Internal connector

CLHS Data Forwarding (CX4 copper)

Status LEDs

External connector

CLHS Camera Input (CX4 copper)

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 meet the ever-increasing image resolution and faster frame rates of today's camera technology. And all Xtium-CLHS frame grabbers are built with Teledyne DALSA's Trigger to Image Reliability framework, which controls and monitors the entire process from trigger through image capture and transfer to host memory and helps protect you from data loss.

Specifications

Part Number	OR-Y4S0-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	Mono8, Mono10, Mono12, and Mono16
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 (32-bit), Linux (64-bit), WoW64 * Contact DALSA sales for more details
Input Camera Port	up to 7 x 6.25 Gbps