**CLHS Frame Grabber with Fiber Optic Interface**

Building on the field proven capabilities of Teledyne DALSA’s Xtium family of frame grabbers, the Xtium™ 2 CLHS FX8 features fiber optic cabling for the CameraLink HS interface on the PCI Express™ Gen 3.0 platform. The Xtium 2 CLHS FX8 boards feature CLHS X-protocol for high efficiency transmission, support up to four bidirectional SFP+ modules to deliver aggregate bandwidth of 5.0 GB/s and can reach cable lengths beyond 300 meters\(^1\) - all in a compact, half-length, single slot solution.

The Xtium2-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 Xtium2-CLHS FX8 minimizes CPU usage and improves processing times for host applications. In addition, the Xtium2 series features enhanced memory bandwidth to meet the ever-increasing image resolution and faster frame rates of today’s camera technology.

**Free Acquisition and Control Software Libraries**

Xtium2 series of frame grabbers are fully supported by Sapera™ LT—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 industry standards including GigE Vision, CameraLink™, CameraLink HS™ and CoaXpress™.

**Fully Supported By Sapera Vision SDK**

When combined with Xtium2 series of frame grabbers, the standard Sapera Processing run-time licenses are offered at no additional charge. Sapera Processing is at the heart of Sapera Vision Software Package 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.
### Xtium2-CLHS Specifications

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| **Card**      | • Part Number: OR-A850-FX840  
• Half-length PCIe x8 card  
• PCIe Rev 3.0 compliant |
| **Acquisition** | • Area scan and line scan  
• Acquisition rate up to 5.0GB/s |
| **CLHS** | • CLHS 1 to 4 lane configurations  
• Up to 4 fiber cables  
• Support for CLHS acquisition trigger modes 1 through 4 |
| **Features** | • 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** | • 512 MB image buffer |
| **Pixel Format** | • Mono8, Mono10, Mono12 and Mono16  
• RGB 8; RGB+Y 8-bit/color/pixel |
| **Controls** | • Comprehensive event notification  
• Timing control logic for camera trigger, line scan direction and strobe signals  
• Camera control through GenCP/SFNC |
| **Connectors** | • 4 x SFP+ cages with latch  
• 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** | • 4 LEDs to report CLHS compliance link status  
• 1 LED Board status |
| **Certification** | • FCC Class A  
• CE, KC  
• EU & China RoHS |
| **Software** | • Supported by Sapera LT and CamExpert  
• Microsoft Windows 7, Windows 10 32/64-bit, WOW64 and Linux |
| **Temperature and storage** | • 10°C (50°F) to 50°C (122°F)  
• Relative Humidity – up to 90% (non-condensing) |
| **Dimensions** | • 11.11cm (4.375”) length x 9.96cm (3.9240”) height |

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1. Based on preliminary information
2. Contact Teledyne DALSA sales for availability
3. Specifications subject to change without notice

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