XTIUM™ 2-CXP PX8 SERIES

Single, Dual & Quad

KEY FEATURES

- Half-length PCIe Gen3 x8 board
- Supports monochrome, RGB and Bayer CXP 2.0 cameras
- 1, 2 or 4 CXP12 HD-BNC port configurations
- 4 port CXP6 DIN 1.0/2.3 configuration
- Image acquisition from up to 4 CXP12 or CXP6 cameras
- Support multiple independent cameras
- Maximum image acquisition input bandwidth up to 5.0GB/s
- GenICam® compliant
- Maximum host bandwidth up to 6.4GB/s
- Up to 2GB of frame buffer memory
- Fully supported by Sapera LT SDK and Trigger-To-Image reliability framework
- Supports Microsoft® Windows® 10/11 64 and 32-bit and Linux1(64) O/S
- FCC, CE, China RoHS and KC compliant

High-Performance CoaXPress™ PCIe Gen3 Frame Grabber Series

The Xtium2™-CXP PX8 series is based on the industry standard PCI Express™ Gen 3.0 and CoaXPress ver 2.0 to transfers image data to the host memory at maximum acquisition rates.

The Xtium2-CXP series takes full advantage of the PCIe Gen 3.0 platform using PCIe x8 slots to deliver bandwidth up to 6.4 GB/sec into the host memory while supporting image acquisition from up to 4 CXP12 input channels (12.5 Gbps per channel). By enabling maximum sustained throughput and ready-to-use image data, the Xtium2 series minimizes CPU usage and improves processing times for the host applications. In addition, the Xtium2 series offers enhanced memory architecture to handle area and line scan, monochrome and color cameras.

The Xtium2 series offers high performance frame grabbers for CameraLink, CameraLink HS and CoaXPress interface standards.

SAPERA LT TRIGGER-TO-IMAGE FRAMEWORK

The Xtium2 series support Sapera LT's Trigger-To-Image (T2IR) framework for the maximum reliability of image acquisition systems. T2IR combines hardware and software functions to provide critical, real-time details of system events that help track and monitor acquisition, transfer and control processes to ensure reliability of the imaging system. Sapera LT SDK provides an API and utility called Sapera Monitor to access this functionality. Sapera Monitor requires no changes to the user application and can run alongside user applications. It offers an intuitive GUI with selectable events to provide detailed reporting. Teledyne DALSA's T2IR helps increase system uptime and lower costs. All T2IR functionality is available free of charge as part of Sapera LT SDK and Xtium2 series of frame grabbers.

FREE SAPERA PROCESSING RUN-TIME LICENSE

When used with Teledyne DALSA's Sapera Processing library, the Xtium2 series offers free Sapera Processing Standard Tools Run-Time License (RTL). The Standard Tools RTL includes access to over 400 highly optimized image processing functions and tools for Area Based Search, Blob Analysis and image calibration. Sapera LT supports Windows and Linux operating systems and multiple programming languages under various development environments.

SPECIFICATIONS[2]

Features	Description
Board	• **CXP12 MODELS WITH HD-BNC:** **Xtium2-CXP PX8 Single** (1-port) **Part Number: OR-A8X0-XPX10** **Xtium2-CXP PX8 Dual** (2-ports) **Part Number: OR-A8X0-XPX20** **Xtium2-CXP PX8 Quad** (4-ports) **Part Number: OR-A8X0-XPX40** • **CXP6 MODEL WITH DIN 1.0/2.3:** **Xtium2-CXP PX8 Quad** - CXP6 DIN Connectors **Part Number: OR-A8X6-XPX40** • Compatible with CoaXpress 2.0 • Half-length PCI Express Gen3 x8
Connectors	• Camera: 4 x Micro-BNC (also known as HD-BNC) , or 4 x DIN 1.0/2.3 connectors • GPIO: DH60-27 on main bracket
Pixel Formats	• **Mono:** 8, 10, 12, 14 and 16-bit, • **RGB:** 8, 10 or 12-bit/pixel/color • **Bayer:** 8, 10 and 12-bit/pixel
Acquisition	• Supports CXP-1 to CXP-12 configurations • **Camera Configurations:** • Xtium2-CXP PX8 Quad: • Max input B/W: 4x12.5 Gbs – 5.0 GB/s • 4 Cameras – 4x1-lane/camera • 3 Cameras – 2x1-lane/camera with 1x2-lane/camera • 2 Cameras – 2x2-lane/camera • 1 Camera – 1x4-lane/camera
	• Horizontal (min/max): 32/64K bytes • Vertical(min/max): • Area scan: 1 line/64K lines/frame for area-scan cameras • Linescan: 1 line/infinite lines for line-scan cameras 2GB onboard frame buffer memory
Multi-Board Synchronization	• Up to 4 boards in the same PC • Zero CPU copy to acquire images from multiple images and boards in one buffer
Communications	• Camera Feature access through SaperaLT's CorAcqDevice module

Function	Description
Control	• Comprehensive event notification includes start/end of frame/transfer • Camera control signals for external event synchronization • 4-optically isolated inputs can be configurable as Trigger or general purpose inputs; tolerate 5, 12 and 24VDC signals 8 reconfigurable TTL outputs
Encoder Inputs	• RS422 or TTL quadrature (AB) shaft-encoder inputs for external web synchronization • Up to 5MHz frequency, with built in bi-directional jitter tolerance
Power Output	• Power-on-reset fused • +24V output @ 800mA • PoCXP 4 x 13W; requires PCI Express 6-pin power connector
Temperature[3]	• **Operating:** 10° C (50° F) to 50° C (122° F) • **Storage:** Relative Humidity: up to 90% (non-condensing)
Software	• **Device driver supports:** Microsoft®, Windows 10/11 (32/64-bit) compatible • Fully supported Teledyne DALSA's Sapera Vision Software packages • Application development using C++ and Microsoft .Net languages(C++, C# or Visual Basic)
Systems Requirements Dimensions[3]	• PCI Express Rev 2.0 or higher (Rev 3.0 recommended) with one x8 slot system with 4GB or higher system memory • (W x H) 6 in. (14 cm) x 4 in. (10 cm)
Compliance	• FCC Class B • CE • China RoHS • KC

1 Contact Teledyne DALSA sales for availability
2 Subject to change without prior notice
3 Based on the advanced information

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