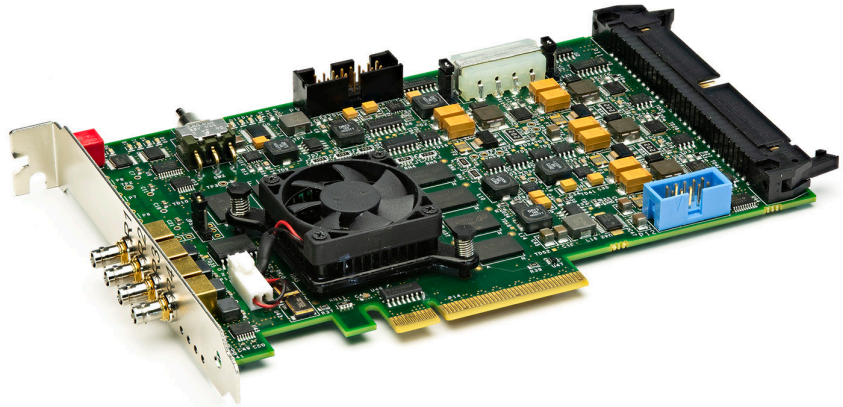# Claxon-CXP

CoaXPress Version 2.0 doubles the speed of CXP up to 12.5 Gb/S. BitFlow stays ahead of the curve with its Claxon frame grabber that support up to four links of CXP-12.

BitFlow > Frame Grabbers > Claxon-CXP4

Introducing The Claxon Platform

BitFlow has been shipping CoaXPress frame grabbers since 2012. The standard has not stood still and BitFlow has continued to advance its products. The latest is the Claxon, a quad CXP-12 PCIe Gen 3 frame grabber. CXP-12 is the latest CoaXPress speed jump, now transmitting video at 12. 5 Gb/S. While the speed of data through the frame grabber has doubled, the overall architecture has remained the same as the previous generation Cyton, allowing user to easily migrate to the newer cameras without major software changes.

CoaXPress

CoaXPress (CXP) is the latest Machine Vision designed camera to frame grabber interconnect standard. CXP supports a high speed downlink for video data, a low speed uplink for camera control, and power, all over standard coax cables. Multiple CXP connections can be aggregated to even higher speed cameras.

CoaXPress Version 2.0

CXP 2.0 not only doubles the speed from the previous release (6.25 to 12.5 Gb/S) but also adds many new features directed at industrial Machine Vision. For example, the uplink is now running twice as fast, and the trigger packet has been simplified to support much higher camera trigger speeds. Support has been added for device to host event packet, supporting asynchronous messages from the camera. Also added was support for the micro BNC connector which is more robust and runs at higher speeds than the DIN 1.0/2.3. A heartbeat packet has also been added which supports time synchronization of multiple cameras.

Application Support

Adding the Claxon-CXP to your application is simple with our SDK, which supports both 32-bit and 64-bit operating systems. Applications can be developed using C/C++/.NET and our sophisticated buffer management APIs. In addition, free drivers can be download from our web site for most 3rd party machine vision packages. The Claxon-CXP is software compatible with all the other current BitFlow frame grabbers. This makes migrating applications from Camera Link or analog to CXP simple and quick.

The Claxon Platform

The Claxon-CXP4 is just the first product on the Claxon platform. Coming soon will be support for high speed data forwarding (over CXP) and support for CXP over fiber. Stay tuned for more exciting Claxon products.

Frame Grabbers

Machine Vision Software Support

Application Development Software

מפיץ בישראל:

www.1vision.co.il, +972-9-9507712

The Claxon-CXP Features

- Half-Size x8 PCI Express Gen 3.0 frame grabber
- CoaXPress 1.0/1.1/2.0 compliant
- Supports one to four CXP-12 cameras
- Supports multi-link CXP-12 cameras (up to four CXP links)
- Supports CXP speeds from 3.25 to 12.50 Gb/S
- Supports simultaneous capture from four CXP-12 cameras
- Low speed uplink supported on all links
- Uses micro BNC connectors
- Provides power for all cameras (up to 13 Watts per link)
- Provides Safe Power, full protection from all power line faults
- Cameras are Plug and Play with automatic link speed and camera parameter detection
- Cable lengths of up to 100 meters are supported
- Cameras can be accurately synchronized, or can be completely independent
- Compatible with all PCIe x8/x16 slots Gen 1.0/2.0/3.0
- Separate I/O for each camera
- Highly deterministic, low latency frame grabber to camera trigger
- Supports simultaneous command and control to all cameras
- Windows "sees" a separate virtual frame grabber for each camera
- StreamSync technology maximizes data through-put while minimizing image latency
- Acquire variable length frames from line scan cameras
- Triggers and encoders for external control of acquisition
- Drivers, utilities and examples for Windows and Linux
- Supported on both 32-bit and 64-bit platforms
- Drivers for most 3rd party processing environments (e.g. HALCON, LabView, VisionPro, MATLAB, etc.)
- Full GenICam support for camera control and capture
- Programmable signal generator for camera control (independent for each camera)
- Quadrature encoder support including sophisticated triggering schemes
- Encoder divider/multiplier
- RoHS compliant
- Supports BitFlow BitBox

The Claxon-CXP4 Block diagram
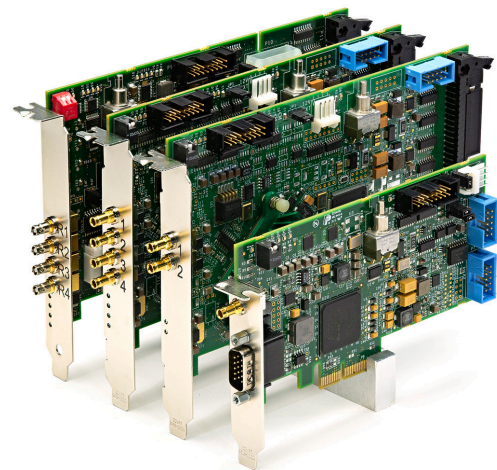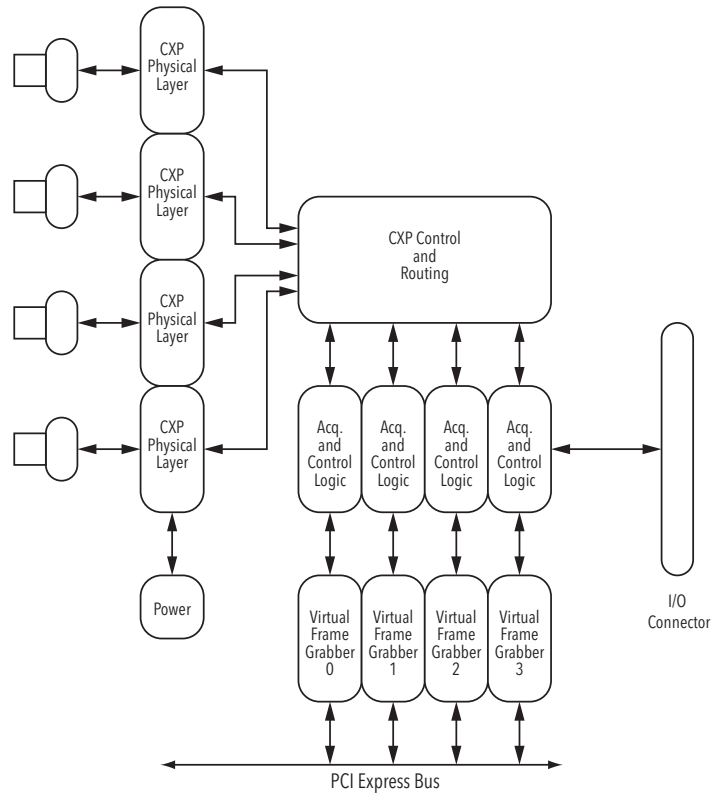
The BitFlow CoaXPress Family

	Claxon	Cyton	Aon
Number of Links	2-4	2-4	1
Maximum Link Speed	CXP-12	CXP-6	CXP-6
Max Cameras	4	4	1
PCI Interface	x8 Gen 3	x8 Gen 2	x2 Gen 2

The Claxon, Cyton and Aon

BitFlow™

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