

Frame grabbers for machine vision



CLAXON FIBER

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 PCle 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.

Another thing to consider is that fiber is immune to electrical noise.

All currently CoaXPress data rates are supported, up to 12 Gb/S. And the future looks bright, 25 Gb/S over fiber is coming soon.

Specifications

- Half-Size x8 PCI Express Gen 3.0 frame grabber
- CoaXPress 1.x/2.x compliant
- Supports one quad link camera, two dual link cameras and four single link cameras
- Supports CXP speeds from 1.25 to 12.50 Gb/S
- Fiber connection always runs at 10 Gb/S (which is the equivalent of 12.5 Gb/S CXP)
- No firmware change needed to go from multi-link cameras to multiple cameras
- Supports all QFSP+ compatible fiber cable assemblies
- Supports cables lengths well over a kilometer
- Cameras are Plug and Play with automatic link speed and camera parameter detection
- 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 uplink camera trigger
- 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 GenlCam 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
- Supports BitFlow BitBox
- RoHS compliant
- REACH compliant