

*The Axion-CL is the most powerful Camera Link frame grabber BitFlow has ever manufactured. A natural addition to this family was obvious... A CL Base version.*

## Introducing The Axion 1xB

BitFlow has been shipping Camera Link frame grabbers since the specification was first released in 1999. At the time nobody was sure that the CL specification was going to succeed. In the many years since then, Camera Link has proved itself to be low cost, high speed, robust and adaptable. For true machine vision applications, it has become the market leading interconnect standard. The Axion-CL is the most powerful Camera Link frame grabber BitFlow has ever manufactured. A natural addition to this family was obvious.. a CL Base version. The Axion 1xB will be replacing the Neon CLB frame grabber.

## Borrowing from the Cyton

The Axion 1xB also benefits from other products in BitFlow's line up. The Axion 1xB uses the Cyton-CXP's backend: The StreamSync DMA engine and buffer manager. A brand new PCIe Gen 2 interface, with DMA optimized for modern (fully loaded, fully busy) computers.

## Moving from Neon to xB Family

Moving from the Neon family to the Axion family is simple. No need to make changes to your code, just recompile with the latest SDK. If you are using a 3rd party application, such as Cognex VisionPro or LabVIEW just download the latest driver and your program will already be

supported. The same application can support both Axion and Neon families (as well as our CXP family line of frame grabbers).

## Camera Compatibility

The Axion-CL has been designed to work with all of the popular high speed Camera Link cameras. The Axion 1xB is compatible with all Base CL cameras.

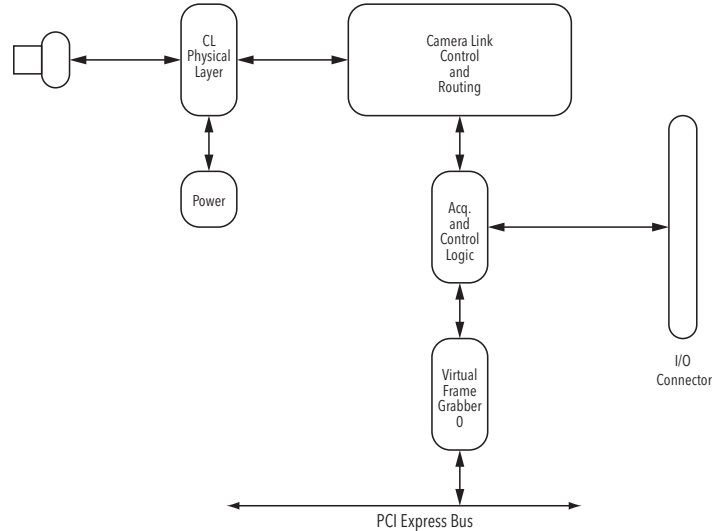
## Application Support

Adding the Axion 1xB 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 downloaded from our web site for most 3rd party machine vision packages. The Axion 1xB is software compatible with all the other current BitFlow frame grabbers. This makes migrating applications to/from Camera Link, Analog, and CoaXPress simple and quick.

## Axion 1xB Features

- Base Camera Link interface
- All Camera Link tap formats are supported
- Supports one Base CL camera
- Supports both PoCL and non-PoCL cameras
- Provides Safe Power - full protection from all CL power line faults
- Half-Size x4 Gen 2 PCI Express board
- Acquire up to 24 bits at 85 MHz
- Both CL and I/O connector are on the same bracket
- MDR Camera Link connectors
- StreamSync technology means that no on-board memory is needed, even with the fastest cameras
- DMA at data rates up to 1.8 GB/S
- Supports images up to 256M pixels x 16M lines
- No frame rate limit (tested to over 250K FPS)
- Triggers and encoders for external control of acquisition
- Sophisticated triggering modes for complex applications
- Acquire, trigger controlled, variable length frames with line scan cameras
- Quadrature encoder support including sophisticated triggering schemes
- Encoder divider/multiplier
- Two general purpose, on-board timing generators (exposure control, strobe, solenoids, etc.)
- Drivers, utilities, examples for Windows and Linux
- Supported on both 32-bit and 64-bit platforms
- Camera Link Specification compliant serial port support
- GenTL producer supplied for working the GenICam based applications
- GenCP based camera control application, Ximilon, available for free
- Acquire images sequences well beyond the 4GB barrier
- Drivers for most 3rd party processing environments (e.g. HALCON, LabVIEW, VisionPro, MATLAB, etc.)
- RoHS3 compliant
- REACH compliant

## Axion 1xB Block diagram



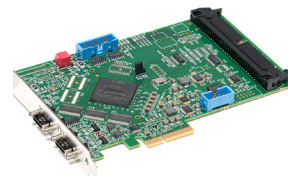
## Also in the Axion Family



Axion 2xB



Axion 4xB



Axion 1xE



Axion 2xE