

*Karbon is the world's first four-camera PCI Express frame grabber. With an x8 PCI Express interface, the board can DMA at speeds of up to two gigabytes per second.*



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## The Karbon-CL

BitFlow is introducing the world's first four-camera PCI Express frame grabber, the Karbon-CL. It can acquire simultaneously from up to four Base CL cameras or two Full CL cameras (including 10-tap CL). Further, it is also built on top of BitFlow's FlowThru technology, which provides zero latency access to data, super low CPU usage, and unlimited DMA destination size. The Karbon-CL is the first member of BitFlow's Karbon family, which will provide a platform that can host an wide variety of virtual frame grabbers. These virtual frame grabbers can be customized to meet an OEM's specific needs.

The Karbon-CL has been designed with two main applications in mind. First, in situations where more than one camera is needed, the Karbon-CL can reduce both the system cost and the hardware footprint by its ability to acquire from up to four cameras. Second, in situations where extremely high data rates and/or frame rates are required, the Karbon-CL has been designed to handle up to 160 bits at 85 MHz pixel clock rate and can DMA at data rates up to 2.0 GB/S. For example, the Karbon-CL can handle two of the new 10-tap CL cameras.

## Features

- Half-Size x8 PCI Express Board
- Up to 160 bits input at 85 MHz
- Acquire from 4 independent Base CL cameras
- Acquire from 2 independent Medium/Full CL cameras
- Compatible with 10 tap Full CL cameras
- FlowThru technology means that no on-board memory is needed, even with the fastest cameras
- Hardware Bayer matrix decoding (optional)
- Multi-tap cameras rasterized on the fly
- Highly customizable acquisition engine
- DMA at data rates up to 2.0 GB/S
- Supports images up to 256K x 128K (unlimited vertically for line scan)
- No frame rate limit
- Trigger, encoders and CC's for each camera
- General purpose I/O
- Support by the BitFlow SDK on 32 and 64-bit Windows
- Acquire image sequences well beyond the 4GB barrier
- RoHS and CE approved
- The Karbon-CL is the first member of the Karbon family
- The Karbon platform can host a wide variety of virtual frame grabbers

Frame Grabbers

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