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PIXCI® E8

PCI Express x8 Frame Grabber For High Bandwidth Camera Link Cameras

The PIXCI® E8 frame grabber supports the fastest Camera Link cameras; cameras with pixel clock frequencies up to 85 MHz. More than 900 Extended, Full, Medium, Base, Dual Base, and PoCL configuration Camera Link cameras have dedicated support. Other Camera Link cameras are supported through Generic (universal) Capture & Adjust dialogs.

A Camera Link camera operating at 85 MHz, in Extended (10-tap 8 bit) mode, generates image data at a sustained rate of 850 megabytes per second. The PIXCI® E8 inputs image data at up to 850 megabytes per second, and transfers the data, through the PCI Express bus, at burst transfer rates up to 1.4 gigabytes per second.

Toggle a switch on the PIXCI® E8 to use with 2 base configuration cameras. PoCL is provided on both MDR connectors (Rev 1.0).

The PIXCI® E8 provides camera operation in free-run mode for maximum frame rate sequence capture, and it offers control (trigger) mode so that a signal from an external device can control image capture. The XCAP program provides camera-specific control (exposure, bit depth, gain, frame rate, etc.) through dedicated, easy-to-use, Capture & Adjust dialogs.

The PIXCI® E8 is designed for the future. It can be used in a PC with a PCI Express x8 or x16 bus slot and as little as 512 megabytes of installed computer memory. At the other extreme, 64-bit memory addressing allows video capture directly to terabytes of computer memory for seconds, minutes, or hours. For longer durations, when used with the XCAP-Std



- High Bandwidth Camera Link Frame Grabber
- Base, Medium, Full Camera Support
- Extended, Expanded, or 10-Tap Support
- Dual Base Camera Support
- Power over Camera Link (PoCL)
- PCI Express x8 Bus
- 1.4 Gbyte/sec Burst Transfer
- Line Scan or Area Scan
- Camera Frame Rate Sequence Capture
- Triggered Image Sequence Capture
- 64-Bit Memory Addressing
- Camera Integration & Async Reset Control
- Images Stored in Motherboard Memory or RAID Array
- Windows & Linux, 32 & 64-bit Compatible



seconds, minutes, or hours. For longer durations, when used with the XCAP-Std program, capture video directly to SSD or RAID — subject to the capacity of the drives.

Multiple PIXCI® E8 boards can be used in the same computer supporting the same or different cameras. Also, the PIXCI® E8 can be used in the same computer with other EPIX® frame grabbers, allowing simultaneous capture from different camera models, either Camera Link compatible or not. The PIXCI® E8, with XCAP-Lite imaging program, is \$1295.00.






EPIX, Inc. has been providing imaging solutions and support for OEM machine vision manufacturers and engineers since 1984. EPIX, Inc. assembles complete imaging systems with cameras, frame grabbers, high-performance PCI Express buses, and with RAID arrays for video-to-disk capture. EPIX® imaging systems, custom-built to your specifications, feature Intel motherboards and processors. Contact EPIX, Inc., or an authorized EPIX, Inc. distributor, for help selecting cameras, frame grabbers, imaging software, optics, and computer systems.







Featured In:



FEATURES

POPULAR SUPPORTED HIGH BANDWIDTH CAMERAS

| Camera | Resolution | Frame Rate | Bit Depth / Pixels | Notes |
|--|------------|------------|---|--|
|  Allied Vision Technologies Bonito CL-400 Monochrome or Color | 2320×1726 | 400 fps | 10-Bit CMOS 7 μ ² 3.89 Mpixel | Needs one PIXCI® E8 for half frame rate, two for full frame rate. |
|  Basler A406k Monochrome or Color | 2320×1726 | 209 fps | 8-Bit CMOS 7 μ ² 3.89 Mpixel | |
|  Basler A504k Monochrome or Color | 1280×1024 | 500 fps | 8-Bit CMOS 12 μ ² 1.25 Mpixel | Global Shutter. Windowing for faster frame rate. |
|  Mikrotron EoSens CL 1362/1363 Monochrome or Color | 1280×1024 | 500 fps | 8/10-Bit CMOS 14 μ ² 1.25 Mpixel | Global Shutter. ISO 2500 (Mono) Windowing for faster frame rate. |
|  NAC HotShot 512 CL Monochrome or Color | 512×512 | 2300 fps | 8-Bit CMOS 16 μ ² 0.25 Mpixel | ISO 1650 (Mono) Freeze-Frame Global Shutter. |
| NAC HotShot | | | 8-Bit CMOS | ISO 100 (Mono) |

| | | | | | |
|---|---|--------------------------------------|--------------------------------------|--|--|
|  | Princeton Instruments ES2093 Monochrome or Color | 1920×1080 | 30.12 fps | 12-Bit CCD 7.4 μ ² 2.074 Mpixel | Simultaneous capture with display from up to 4 camera heads at full resolution, bit depth, and frame rate. |
|  | Princeton Instruments ES4020 Monochrome or Color | 2048×2048 | 15.05 fps | 12-Bit CCD 7.4 μ ² 4.19 Mpixel | |
|  | Princeton Instruments ES11000 Monochrome or Color | 4008×2672 | 5.86 fps | 12-Bit CCD 9.0 μ ² 10.71 Mpixel | |
|  | Princeton Instruments ES1602 or ES1603 Monochrome | 1536×1024 | 6.2 fps | 12-Bit CCD 9.0 μ ² 1.57 Mpixel | |
|  | Princeton Instruments ES3200 Monochrome | 2184×1472 | 2.9 fps | 12-Bit CCD 6.8 μ ² 3.3 Mpixel | |
|  | Princeton Instruments EC11000 Monochrome or Color | 4008×2672 | 5.86 fps | 12-Bit CCD 9.0 μ ² 10.71 Mpixel Peltier Cooled | |
| | Virtually ALL Full, Medium, & Base Camera Link Cameras | Supports Camera's Maximum Resolution | Supports Camera's Maximum Frame Rate | Any | Optimized for camera link cameras listed in PIXCI Selection Guide . |

The chart lists high-performance cameras that showcase the PIXCI® E8 board's capability to transfer massive amounts of image data which translates into the ability to capture high resolutions at comparatively fast frame rates. The PIXCI® E8 is primarily designed to support high performance cameras, but it also works with virtually *ALL* camera link cameras.

Please visit the [PIXCI Selection Guide](#) for a comprehensive listing of supported cameras.

SPECIFICATIONS

SIGNAL INPUT & OUTPUT:

EIA RS-644 (LVDS) Drivers & Receivers support pixel clock frequencies up to 85 MHz.

PERFORMANCE (Camera Link):

Supports the camera's maximum:
Horizontal Resolution
Vertical Resolution
Frame Rate
Bit Depth

CONNECTIONS:

Two 26-pin 3M MDR Camera Link connectors for Full, Medium, and Base.
10-pin header for Trigger, Frame Enable, and Strobe.
10-pin header for General Purpose Inputs and Outputs.

BUS REQUIREMENTS:

PCI Express x8 Bus slot.
Operates in PCI Express Bus x16 or x8 slot.

POWER REQUIREMENTS:

12 V @ 120 mA
3.3 V @ 720 mA
Total 3.816 Watts

DIMENSIONS:

13.08 cm long by 10.55 cm high
(5.15" long x 4.153" high)

CERTIFICATIONS:

CE, FCC, & ROHS Compliant

EPIX SOFTWARE Support:

Supported by **XCAP-Lite** (no charge with purchase of PIXCI® frame grabber), **XCAP-Ltd**, **XCAP-Std**, **XCLIB**, and **XCLIBIPL**.
Compatible with Windows 7, Vista, XP, 2K, LINUX, and 32-bit DOS. Also TWAIN and Image-Pro Compatible.

PRICING

PIXCI® E8 - PCI Express x8 Interface for Camera Link cameras.

PIXCI- E8 PCI Express x8 Interface for Camera Link cameras. \$1295.00



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