

PIXCI® e104x4

PCIe/104 Frame Grabber For Embedded Camera Link Applications

Applications

- Airborne
- Automotive
- High Data Rate
- Industrial
- Mobile
- Multi-Camera
- Rugged
- Underwater



Frame Grabber Features

- PCIe/104 x4 Gen2 Camera Link Frame Grabber
- Captures from 1 or 2 Medium, Full, or 10-tap Camera Link Cameras
- Captures from up to 4 Base Camera Link Cameras
- Line Scan or Area Scan
- Camera Frame Rate Sequence Capture
- Triggered Image Sequence Capture
- Camera Integration & Async Reset Control
- DMA Image Data to Motherboard Memory
- Windows & Linux, 32 & 64-bit

Interface Features

- Type 1 bottom-stacking PCIe/104 x4 Gen 2.0 interface.
- 64-bit memory addressing.
- 20 gigabit per second burst transfer rate.
- 4.55 inch x 3.775 inch size (11.56 cm x 9.59 cm).
- PCI104e bus expands without a backplane or card cage.
- Rugged, reliable connectors.
- Four corner mounting holes: Resistant to shock and vibration.
- Industrial temperature range.

Software

- **XCAP**-Lite image capture, display, and save program included
- Capture video to computer memory with **XCAP**-LTD

- Stream video to disk with **XCAP-STD**
- **XCLIB** programmer libraries for frame grabber and camera control
- **PXIPL** image processing, measurement, and analysis libraries
- **3rd Party** software available
- Windows & Linux, 32 & 64-bit

SPECIFICATIONS

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

PERFORMANCE (Camera Link): Supports camera's max resolution, frame rate, and bit depth.

CONNECTIONS: Four 26 pin MDR Camera Link connectors for up to four Base cameras or one or two 10 tap, Full, or Medium cameras.
Two 10 pin headers for trigger inputs and strobe outputs.

BUS REQUIREMENTS: Type 1 Bottom-Stacking PCIe/104 V2.01 With Gen 2.0 Protocol (2.5 to 5 GT/s)

POWER REQUIREMENTS: 12 V @ 120 mA
3.3 V @ 720 mA
Total 3.816 Watts

DIMENSIONS: 11.56 cm long by 9.59 cm high
(4.55" long x 3.775" high)

TEMPERATURE RANGE: -40° to 70°C

WEIGHT: 95 grams

CERTIFICATIONS: ROHS Compliant

EPIX SOFTWARE Support: Supported by **XCAP-Lite** (no charge with board purchase), **XCAP-Ltd**, **XCAP-Std**, **XCLIB**, and **XCLIBIPL**.
Compatible with 32-bit & 64-bit Windows 10, 8, 7, Vista, XP, 2000, LINUX, and 32-bit DOS. Also TWAIN and Image-Pro Compatible.

EXAMPLE CONFIGURATIONS

ELMA OptiSys-5101 Embedded Vision System

Four Camera Link Ports and High Capacity Removable Storage

- Haswell class CPU for high performance capture rate
- High capacity data storage enables thousands of HD images
- Supports up to 2 medium, full, or 10-tap camera link cameras
- Supports up to 4 base camera link cameras
- Customizable for your application



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® e104x4 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 1280 CL Monochrome or Color	1280×1024	500 fps	8-Bit CMOS 12 μ ² 1.25 Mpixel	ISO 400 (Mono). Freeze-Frame Global Shutter.	
 Princeton Instruments ES2020 or ES2001 Monochrome or Color	1600×1200	31.85 fps	12-Bit CCD 7.4 μ ² 1.92 Mpixel	Simultaneous capture with display from up to 4 camera heads at full resolution, bit depth, and frame rate.	
 Princeton Instruments ES2093 Monochrome or Color	1920×1080	30.12 fps	12-Bit CCD 7.4 μ ² 2.074 Mpixel		
 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 .