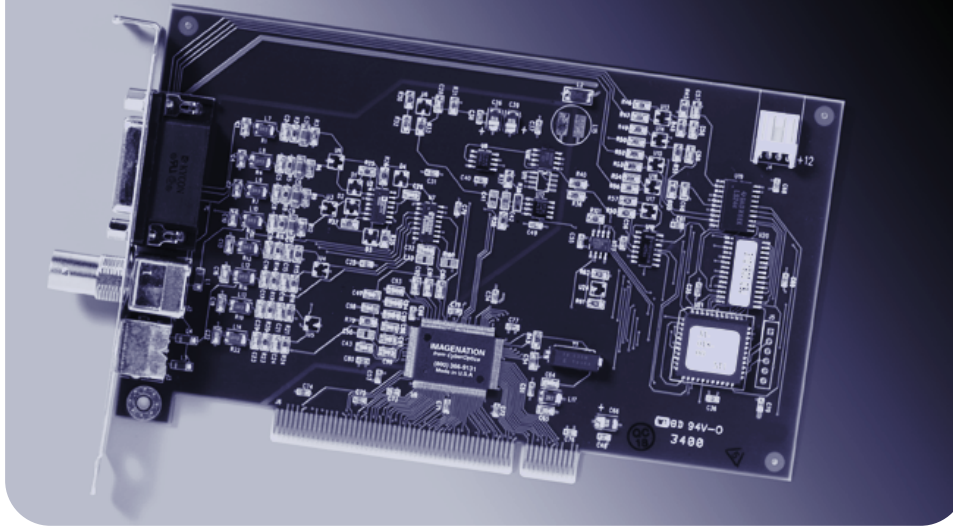## Imagenation PXC200A Color Frame Grabber

Now you can get the features, flexibility and accuracy you need for high-performance color and monochrome video capture, at a surprisingly affordable price.

Affordable color solution for standard PCI formats

Built on robust features found in much more expensive products. The Imagenation PXC200A Color Frame Grabber combines high quality color and monochrome video capture with a Peripheral Component Interface (PCI) at an unusually affordable price. High accuracy, low pixel jitter and other leading features offer solid support for the most demanding industrial and commercial applications.

Acting as a PCI bus master, the PXC200A achieves real-time video capture to system memory. It handles data transfers while the main CPU is free to run other parts of your application or other applications. Image data can be transferred to a buffer in main memory or directly to another PCI device.

Four multiplexed video inputs can accept color video from NTSC, PAL and SECAM video sources. One of these can also be reserved for S-video. Color formats supported include YCrCb and RGB, while Y8 is supported for monochrome applications. Also included are real-time image scaling with interpolation, plus horizontal and vertical cropping to minimize memory and bus bandwidth requirements.

The PXC200A is easy to integrate into your application, providing support for commercial machine vision software including XCaliper, Halcon and CVB.

PXC200A options contribute higher performance and flexibility. The following features are included at a reasonable price with the PXC200A's optional control package (part number PXC200AF).

- Eight general purpose I/Os – programmable as four separate triggers and four strobes.
- Vertical and horizontal sync out for gen-locking a video source, providing a more stable image.
- Strobe inhibit during CCD transfer time for reliable image capture with strobes.
- A total of four video inputs– any or all of which can be S-video.
- DC restore on all 4 video inputs.

Comprehensive software support for Imagenation products. Demo programs for Windows makes it easy to get the PXC200A up and running right out of the box. They let you capture images and save images to disk .

Software support is also included for Borland and Microsoft C/C ++ compilers and other languages that can call standard Windows DLLs.

Our technical support engineers are on hand to provide assistance throughout your development process. Current software and examples are also available at the Technical Support page of the Imagenation product web site at www.imagenation.com

PXC200A Specifications

Input video formats	NTSC, PAL, SECAM, S-video
Input video	1V peak to peak, 75Ω
Resolution	NTSC: 640 x 480; PAL/SECAM: 768 x 576
Sampling jitter	Maximum of ± 4ns relative to horizontal synchronization (for a stable source)
Output formats	Color: YCrCb 4:2:2 and 4:1:1; RGB 32, 24, 16, 15; Monochrome: Y8
External trigger	Input pulled by 10k Ω to 5V, trigger requires a TTL pulse of 100 ns (minimum); software programmable edge or level sensitivity; software programmable polarity
ESD protection	All inputs and outputs are diode protected
Form factor	PCI short card, 174.6 x 106.7 mm (6.875 x 4.2 inches)
Video noise	≤ 1 LSB (least significant bit)
Camera power	+ 12 VDC output
Video multiplexer	Standard board: four video inputs (only one can be S-video); Optional Control Package: four video inputs, any or all of which can be S-video
Power requirements	+ 5 VDC, 500 mA
Operating temperature	0° C to 60° C
Warranty	One year limited parts and labor

PXC200AF – Optional Control Package Specifications

Video expanded to 4 S-video inputs

Independent DC restore on four video inputs

Fast field detect for unsynchronized sources

Four TTL inputs, four TTL outputs

Horizontal and vertical drive outputs

Inputs and outputs can be configured as triggers and strobes

- – Programmable trigger edges, debounce
- – Programmable strobe durations, polarity
- – Video synchronized strobes programmable to any line
- – Programmable association between triggers/strobes/grabs/video channel

Strobes can be inhibited during CCD transfer time (programmable inhibit zone)

PXC200A Ordering Information

PXC200AL	Standard product
PXC200AF	Standard product plus optional control package
CB-008	Video cable for PXC200AF - 4 S-Video cameras, enables basic or extended I/O
CB-009	Video cable for PXC200A (L or F) - 4 Composite cameras, enables basic I/O
CB-020	Video cable for PXC200AF - 4 Composite cameras, enables extended I/O

Built-in software protection for the PXC200A is also available.

Contact us for more information or to discuss your application.

Toll free: (800) 366-9131   Phone: (503) 495-2200
Fax: (503) 495-2201
Email: csinfo@cyberoptics.com   Web site: www.imagenation.com

Key Features

PCI bus master design for real-time image capture

Support for YcrCb, RGB and Y8 (gray scale) output formats

Low pixel jitter

Standard capture resolutions of 640 x 480 (NTSC) and 768 x 576 (PAL/SECAM)

Four multiplexed video inputs (NTSC/PAL/SECAM/S-video)

Real-time image scaling with interpolation, plus horizontal and vertical cropping

Continuous, software-initiated and triggered capture of frames

External TTL-level trigger

+ 12 VDC camera power supply

Simple software interface

Software development support for Windows 95/98/2000/NT/ME/XP

Support for C/C++, Visual Basic and Direct Draw

SDK included

DAC reference generator eliminates inconsistency of AGC

Verified to FCC Part 15 Class A requirements. Full compliance to CE EMC standards (EN-55022, EN-55024, CISPR-22)

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