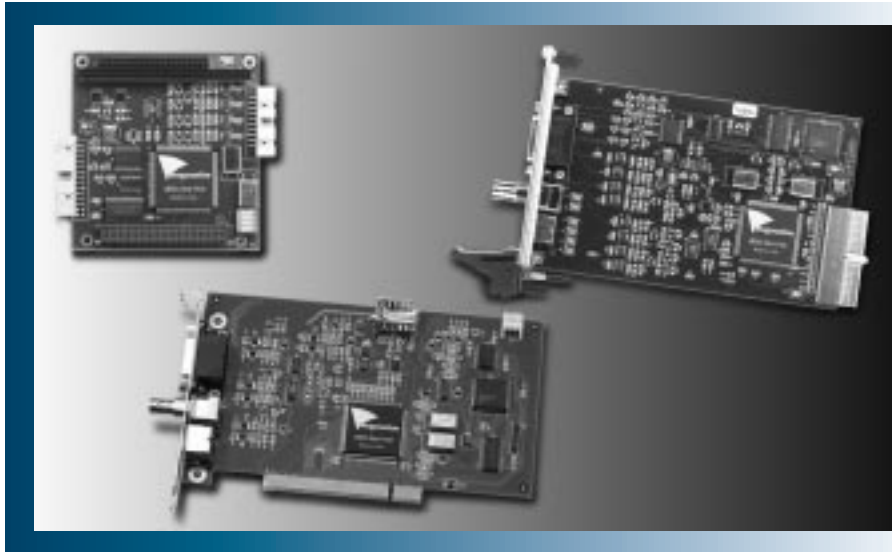


PXC200 Color Frame Grabber



Affordable color solution for standard PCI, embedded PC/104-Plus and CompactPCI formats



Build on robust features found in much more expensive products.

The PXC200 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 PXC200 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 and PAL video sources. One of these can also be reserved for S-video. Color output 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 PXC200 is easy to integrate into your application, providing support for commercial machine vision software like XCaliper from Optimas.

PXC200 options contribute higher performance and flexibility.

The following features are included at a reasonable price with the PXC200's optional control package:

- Eight general purpose I/Os—programmable as four separate triggers and four strobes.
- Vertical and horizontal synch 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.

Imagination gives you comprehensive software support.

Demo programs for Windows and DOS make it easy to get the PXC200 up and running right out of the box. They let you capture images, save images to disk and adjust image capture features of the card without writing code.

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

Technical support, current software and examples are offered at Imagination's web site. Or call toll-free to talk directly with our design engineers if questions arise.

We can respond to a wide range of requirements.

With Imagination, your software investment is protected because no rewrite is required if another platform can better satisfy your price and performance requirements in the future. For example, the PXC200 comes in other form factors and bus standards including PC/104-Plus and CompactPCI for embedded systems—a cost-effective alternative to a desktop computer system as you ramp up for volume applications.

Imagination also offers a family of monochrome PCI and ISA bus compatible products. And if you require the higher performance of cameras with progressive scan output, the Imagination PX610 family provides a low-cost solution.

Finally, Imagination's team of vision system specialists stand ready to provide fully integrated MV systems or subsystems, custom designed to meet your unique application needs. Imagination takes responsibility for your whole system, providing seamless integration, expert consulting and on-going support.

KEY FEATURES

- Compact, PCI short card, *PC/104-Plus* core module and *CompactPCI* 3U
- PCI bus master design for real-time image capture
- Support for YCrCb, RGB and Y8 (gray scale) output formats
- High color accuracy with low pixel jitter
- Standard capture resolutions of 640 x 480 (NTSC) and 768 x 576 (PAL)
- Four multiplexed video inputs (NTSC/PAL/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 DOS, Watcom DOS/4GW extender, Windows 3.1, Windows 95, Windows NT applications, QNX
- Support for C/C++, Visual Basic and Delphi
- Software and manual included
- DAC reference generator eliminates inconsistency of AGC

PXC200 SPECIFICATIONS

Input video formats— NTSC (RS-170), PAL (CCIR), S-video

Input video — 1V peak to peak, 75 Ω

Resolution — NTSC: 640 x 480; PAL: 768 x 576

Sampling jitter — Maximum of ± 4 ns relative to horizontal synchronization (for a stable source)

Output formats — Color: YCrCb 4:2:2; RGB 32, 24, 16, and 15-bit, 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

Overvoltage 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); *PC/104-Plus* core module, 90 x 96 mm (3.6 x 3.8 inches); *CompactPCI* 3U height, 100 x 160 mm (3.94 x 6.3 inches)

Video noise — ≤ 1 LSB (least significant bit) RMS

Power — + 5 VDC

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

Operating temperature — 0° C to 60° C

Warranty — One year limited parts and labor

Optional Control Package

- Video expanded to 4 S-video inputs
- Independent DC restore on four 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 video line
 - Programmable association between triggers/strobes/grabs/video channel
- Strobes can be inhibited during CCD transfer gate (programmable inhibit zone)

PXC200 ORDERING INFORMATION

PXC200	Standard product
Option 10	Control package
CB-008-00	Video cables for the optional control package
CB-009-00	Video cables for the standard product

The PXC200 is available in a standard PCI short card and embedded system formats for *PC/104-Plus* and *CompactPCI*. Built-in software protection for the PXC200 is also available.