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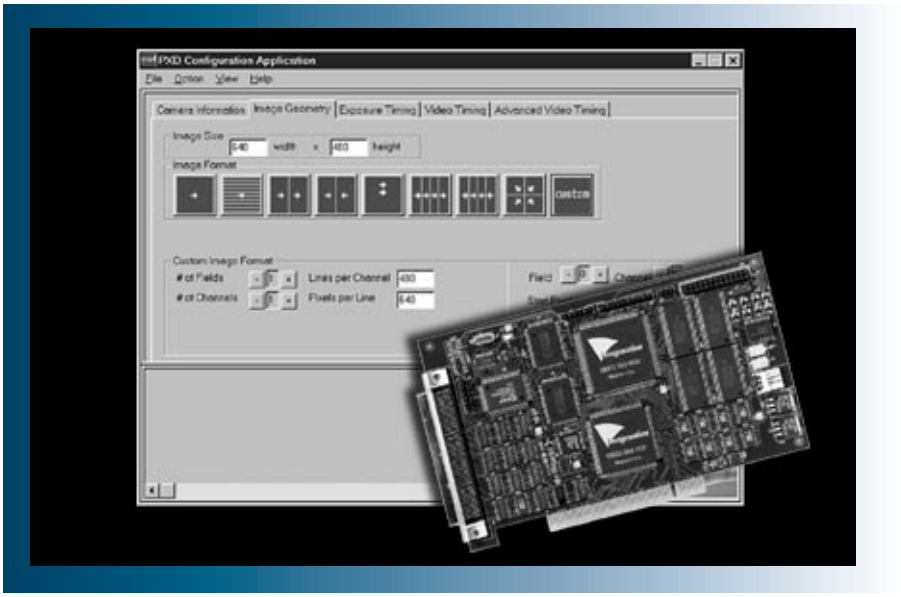
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Find the *CyberOptics / Imagenation PXD-1000-00* at our website: ***Click HERE***

PXD1000 Digital Frame Grabber

imagenation
vision system specialists

Finally, an easy, accurate, affordable digital video capture solution ... with no hidden extras.



Everything you need to get up and running fast. Imagenation's PXD1000 is the perfect entree to the ultra-precise but often complex world of digital video capture. Its performance rivals that of costlier digital PCI frame grabbers, while maintaining exceptional ease of use — just connect the PXD1000, install the software and you're ready to grab images. A camera configuration application is even included, allowing you to conveniently add or reconfigure cameras, along with demo programs and optional cables.

Working with single, dual or four channel cameras, the PXD1000 supports *both* RS422 and RS644 input signals on the same board. High data rates — up to 40M pixels/sec per 8-bit channel and up to 160M pixels/sec with 4-channel cameras — qualify the PXD1000 for the most demanding video capture applications. Area scan, line scan and TDI (time delay and integration) cameras can be accommodated with equal convenience. And with multi-channel cameras, "on-the-fly" pixel reordering is performed automatically for a variety of formats, so processing can begin immediately.

The PXD1000 can sustain 100 MB/sec PCI bus transfers and burst at 132 MB/sec burst rates. Its excellent sustained PCI bus performance, coupled with 2 MB on-board FIFO memory, eliminates any chance of data loss. Also included are scatter/gather DMA to economically manage memory, plus advanced control options to coordinate the timing of image capture and other components in a machine vision (MV) system.

The ultimate in camera flexibility. The PXD1000 is compatible with most commercially available digital cameras. Imagenation provides pre-configured files for several operating modes of popular cameras, enabling them to work quickly with the PXD1000.*

For other models — and recognizing that your requirements may change during the design process — Imagenation also provides an elegant Windows-based Camera Configuration Application. It allows you to create, modify and test configuration files without requiring knowledge of the frame grabber's internal architecture. A video window — which reacts to changes in real time — supports your interactive experimentation with camera parameters, including data format, data framing, exposure control, camera modes and more.

Satisfied with an image? Simply save the configuration file and you're off and running. It's as simple as that — and makes the PXD1000 an even more valuable design tool.

Designed to keep pace with your needs. The PXD1000 is designed to support your MV requirements well into the future. Its compatibility with a wide range of cameras makes it possible to upgrade to a higher performance MV system while protecting your current investment in a high-quality digital frame grabber. If future requirements demand a multitap line scan or area camera, for example, we're ready to support it — even now.

Let's get started. The PXD1000 supports standard MV software packages and includes demo programs that let you quickly capture images, save images to disk and adjust image capture features without writing a single line of code. Technical support plus current software and examples are available through our Web site, or call toll-free to talk directly with our design engineers if questions arise.

Finally, our team of vision system specialists can provide fully integrated MV systems or subsystems, customized to your unique application needs. Imagenation takes responsibility for your whole system, providing seamless integration, expert counseling and ongoing support.

**Please contact Imagenation to discuss models of interest and also to obtain the most up-to-date list of predefined configuration files.*

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KEY FEATURES

- High input data rates with up to 40M pixels/sec per 8-bit channel; 160M pixels/sec maximum with 4-channel cameras
- Excellent sustained PCI bus performance, coupled with 2 MB of on-board FIFO memory, means no risk of losing important image data
- The ultimate in camera flexibility, comes complete with a user friendly camera configuration application that allows you to add a new camera easily or reconfigure an existing one
- Works with single, dual or four channel digital area scan, line scan and TDI (time delay and integration) cameras

APPLICATIONS

The PXD1000 is ideal for demanding applications where high data rates, high resolution capture capabilities with superior dynamic range, and advanced control options are essential. Including:

- Semiconductor wafer and reticle inspection
- Continuous web inspection
- Document scanning
- Medical and scientific imaging
- Microscopy
- High-speed industrial machine vision
- Motion analysis and object tracking
- License plate recognition and traffic control
- Thermal imaging

PXD1000 ORDERING INFORMATION

PXD1000 Standard Product
Optional Cables
Optional Software Protection Key

PXD1000 SPECIFICATIONS

Input Data

- The PXD1000 supports *both* RS422 (up to 30 MHz per channel) and RS644 (up to 40 MHz per channel) input signals, on the same board.
- Accommodates single channel cameras with outputs up to 32 bits/pixel and pixel rates to 40M pixels/sec for RS644 signals.
- Accommodates dual channel cameras with up to 16 bits/pixel and up to 80M pixel/sec rates.
- Accommodates four channel cameras at 8 bits/pixel and up to 160M pixels/sec rates.
- Captures area images at up to 32K x 32K pixels.
- Captures images from line scan cameras up to 32K in width.
- Programmable frequency synthesizer allows flexible synchronization.

Data Throughput

- Board contains 2 MB image FIFO memory.
- Sustained 100 MB/s PCI bus transfers (as always, the actual rate is determine by the PCI chipset in the host computer and PCI bus utilization), 132 MB/s burst speeds.

Control I/O

- Programmable debounced trigger.
- Programmable horizontal and vertical synchronization.
- Works with resettable and interlaced cameras.
- Two strobes with programmable pulse-width and polarity can be used as camera exposure controls. They are available in both TTL and RS422.
- Four general purpose I/O (TTL) — two-in and two-out.
- Three general purpose RS422 outputs for camera control.

Data Processing

- Input look up tables (LUTs) can be configured as 4x8:8 or 2x16:16. This facilitates on-the-fly gamma correction, contrast, brightness or other lookup-type adjustments.
- On-the-fly hardware pixel reordering for multi-channel cameras converts from: (two channel cameras) alternate pixels, alternate lines, alternate half-lines with normal/reverse scan, and (four channel cameras) alternate 1/4 lines with normal and reversed scan and quadrants with normal and reversed scans.
- Software image cropping to select region of interest providing lower bandwidth.

Camera Interface/Connector

- A single connector for the camera connector that has 100 pins.
- Optional interface cable supplied for popular cameras.
- Optional cable kit (with unsoldered connections on one end) for other cameras.
- Camera power: + 12V out at 800 mA and + 5V at 800 mA, available on the user connector and the camera connector.
- User connector facilitates easy interface of strobes and triggers to external equipment.

Software Support

- Software libraries.
- Operating systems: Watcom DOS4GW, Win 95/98/NT.
- Supports machine vision software packages.
- Camera configuration application: an easy-to-use window for entering data for a specific camera configuration. Available for Win 95/98/NT only.

Physical Format

- Short-card PCI format.

Other

- Optional software protection.
- FCC(A) and CE approvals.

Contact Imagenation for more information or to discuss your application.

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Email: info@imagenation.com Web site: www.imagenation.com

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Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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