



A selection of images taken from a high-speed sequence of a mouse trap being triggered by a cracker dropped on to it. The original sequence was recorded at 1,000 frames per second with a 125 microsecond shutter to freeze the motion of the incredibly fast moving bale hitting the cracker.

PCI
FASTCAM

An affordable solution for professional PC-based high-speed video analysis.

Photron's PCI offers superior image quality with recording rates from 60 to 250 frames per second (fps) at the maximum resolution of 512 x 480-pixels and up to 10,000 fps at reduced resolutions. Recorded images are stored in the PCI board's memory and accessed by the host PC's PCI bus for display and analysis. Images can be replayed direct from memory and rapidly transferred over the PCI bus to PC disk drives for archiving.

The FASTAM PCI comes equipped with Photron Motion Tools™ software, a powerful suite of motion analysis tools including automatic point tracking/motion analysis. Optional modules can synchronize high-speed images with external data, automatically download image and/or video synchronized with external data, annotate images or video files, record IRIG/GPS time codes and expand image analysis capabilities.

For engineers or OEMs wishing to develop a customized motion analysis system, a Visual Basic/Visual C++ SDK is supplied with this very affordable camera system.

BENEFITS

Full 512 x 480-pixels resolution up to 250 fps, reduced resolution as fast as 10,000 fps

Excellent low cost high-speed video system utilizing a highly sensitive CCD sensor, ideal for lab research and production line fault finding

Photron Motion Tools™ software provides auto-tracking, time-code recording and expanded image analysis tools

Global electronic shuttering from 16.7ms to 4.3µs, independent of frame rate selected

Only one PCI slot required per camera, multiple synchronized systems can be housed in and controlled from a single PC.

Available optional expansion modules include:

- External data capture
- Automatic video and data download
- Enhanced motion analysis
- IRIG/GPS time code capture
- Image annotation



SLOW MOTION
IMAGING SOLUTIONS

Photron®

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SPECIFICATIONS

Frame Rate (fps)	Max. Resolution		Record Time (seconds)	Record Time (frames)
	Horizontal	Vertical		
30	512	480	72.5	2,175
60	512	480	36.3	2,175
125	512	480	17.4	2,175
250	512	480	8.7	2,175
500	512	240	8.7	4,367
500	256	240	17.5	8,735
1,000	256	240	8.7	8,735
2,000	256	120	8.7	17,471
2,000	128	120	17.5	34,943
3,000	128	120	11.6	34,943
5,000	128	80	10.5	53,415
10,000	128	32	13.1	131,072

Sensor 7.4µm square pixel, progressive-scan CCD
Shutter Global electronic shutter from 16.7ms to 8.33µs independent of frame rate
Saved Image Formats JPEG, AVI, TIFF, BMP, RAW (compressed or uncompressed) PNG, and FTIF. Images can be saved with or without image or comment data
PC Control Live image during record, camera control, digital data transfer, file management and image analysis
Phase Lock Enables cameras to be synchronized precisely together to a master camera or external source
Triggering Selectable positive or negative TTL 5V p-p, switch closure
Lens Mount C-mount standard
Timing Internal clock or external source such as IRIG or GPS (requires optional software module)
Camera Cable 20' (6m) standard. 50' (16m) optional
Data Display Frame Rate, Shutter Speed, Trigger Mode, Date or Time (switchable), Status, Frame Count, and Resolution
PC Specifications **CPU:** Pentium 3 750 Mhz 128MB or more of RAM. 16MB or more of V-RAM recommended
OS: Windows 2000/XP
Dimensions and Weight **Camera Head:** 2" (51mm) H x 2" (51mm) W x 4.5" (114mm) D **Weight:** 1.8 lb (0.82kg)
Software **Photron Motion Tools™** is a powerful suite of tools intended to compliment Photron's PC-based high-speed systems. Optional modules include:

- Data Acquisition – records external ASCII data synchronized with video
- Motion Analysis – automated tracking of up to 32 points of interest
- Auto-Download – automatic download of video and data to a networked drive
- IRIG/GPS – records times codes from satellite signals
- Image Annotation – enables individual frames or entire sequences to be labeled

Photron FASTCAM Viewer (PFV) and dedicated **SDK**

Specifications subject to change without notice

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