

# 1280 PCI

F A S T C A M - X

**Combining the power of CMOS high-speed digital imaging performance with your personal computer**



Photron's 1280 PCI brings the power of mega-pixel CMOS sensor technology to your personal computer, giving you unmatched image quality, performance and convenience in one affordable package.

By capitalizing on the excellent anti-blooming capabilities of CMOS sensors, the 1280 PCI offers exceptional color fidelity and unmatched performance, all from a package that fits cleanly within a single PCI slot inside a desktop PC. An electronic global shutter, operating as fast as  $7.8\mu\text{s}$ , ensures that even the fastest event is frozen for analysis.

The 1280 PCI comes equipped with Photron Motion Tools™ software. This powerful suite of software allows you to automatically track the motion of any point within a recorded sequence. Optional modules can synchronize high-speed imagery with external load cell data, automatically download image sequences, annotate, record IRIG/GPS time codes and expand image analysis capabilities.

Employing the latest sensor technology, the 1280 PCI provides an impressive 1,280 x 1,024-pixel image at frame rates to 500 frames per second (fps), and at reduced resolutions up to 16,000 fps.

The 1280 PCI is just one more imaging breakthrough from Photron, the acknowledged leader in providing innovative and practical high-speed imaging solutions.

**F A S T C A M**  
**S P E E D**

## F E A T U R E S

- 1280 x 1024 mega-pixel resolution up to 500 fps
- Electronic global shutter to  $7.8\mu\text{s}$
- Records at speeds up to 16,000 fps
- Large  $12\mu\text{m}$  pixels provide maximum sensitivity and color fidelity
- Four camera systems can operate in a single PC
- Camera gain may be changed at the camera head and under software control for optional image quality
- Photron Motion Tools software provides matchless performance and choice through a selection of optional modules



**PHOTRON™**



## Frame Rates in frames per second

60	125	250	500	1,000	2,000	4,000	8,000	16,000
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## Resolution 8-bit monochrome (256 steps), 24-bit color

Frame Rate (fps)	Resolution Max		Resolution 2		Resolution 3		Resolution Min		Available Shutter Range
	H	V	H	V	H	V	H	V	
500	1,280	1,024	1,280	512	640	128	160	32	2 ms to 7.8 $\mu$ s
1,000	1,280	512	640	512	1,280	256	160	32	1 ms to 7.8 $\mu$ s
2,000	1,280	256	640	256	320	256	160	32	0.5 ms to 7.8 $\mu$ s
4,000	640	128	320	128	160	128	160	32	0.25 ms to 7.8 $\mu$ s
8,000	640	64	320	64	320	32	160	32	125 $\mu$ s to 7.8 $\mu$ s
16,000	320	32	-	-	-	-	160	32	62.5 $\mu$ s to 7.8 $\mu$ s

## Record Time in seconds and frames

Frame Rate (fps)	Standard		Expanded		Maximum	
	Max. Res.	Min. Res.	Max. Res.	Min. Res.	Max. Res.	Min. Res.
500	2s (1,024)	-	4s (2,048)	-	6s (3,072)	-
1,000	2s (2,048)	4s (4,096)	4s (4,096)	8s (8,192)	6s (6,144)	12s (12,288)
2,000	2s (4,096)	8s (16,384)	4s (8,192)	8s (32,768)	6s (12,288)	24s (49,152)
4,000	4s (16,384)	16s (65,536)	8s (32,768)	32s (131,072)	12s (49,152)	48s (196,608)
8,000	4s (32,768)	32s (262,144)	8s (65,536)	65s (524,288)	12s (98,304)	96s (786,432)
16,000	8s (131,072)	16s (262,144)	16s (262,144)	32s (524,288)	24s (393,216)	48s (786,432)

## Playback Speeds in frames per second

1	2	5	10	15	30
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<b>Sensor</b>	10-bit CMOS (Bayer system color, single sensor) with global electronic shutter as fast as 7.8 $\mu$ s
<b>Saved Image Formats</b>	JPEG, AVI, TIFF, BMP, RAW (compressed or uncompressed)
<b>Gain Control</b>	2-position switch on camera head. 3-position software switch
<b>PC Control</b>	Live image during record, camera control, digital data transfer, file management and image analysis
<b>Phase Lock</b>	Enables multiple cameras to be synchronized together
<b>Triggering</b>	Switch closure, open collector, TTL (positive) or software
<b>Lens Mount</b>	Interchangeable F-mount and C-mount adapters supplied
<b>Camera Cable</b>	16.4' (5m). Longer cable lengths available upon request
<b>Data Display</b>	Frame Rate, Shutter Speed, Trigger Mode, Date or Time (can be switched), Status (Playback/Record), Real Time, Frame Count and Resolution
<b>Recording Modes</b>	Start, End, Center and Random
<b>PC Specifications</b>	CPU: Pentium3 1 GHz recommended, 128 MB of RAM or more, 16 MB minimum of VRAM OS: 2000/XP, 98SE/98, ME and NT 4.0
<b>PCI Card Specifications</b>	PCI Standard Specification Rev 2.1. Standard full-size
<b>Software</b>	Photron Motion Tools™ is a powerful box of tools for all aspects of data acquisition and motion analysis. Optional modules include automatic download, analysis, IRIG/GPS, image annotation and data acquisition
<b>Dimensions and Weight</b>	Camera: 3.4" (86 mm) H x 3.4" (86 mm) W x 2.2" (56 mm) D <b>Weight:</b> 1.2 lb (0.55 kg)

Specifications subject to change without notice.

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