

MotionScope® PCI Series



The Redlake MASD *MotionScope*® PCI system has simplified image acquisition for motion analysis. Designed as a PC peripheral for capturing high-speed digital images directly in the PC, the *MotionScope*® PCI system consists of a high-speed camera, full size PCI camera control and frame store board (onboard memory), installation and user interface software and documentation. System operation is easy with the "point & click" windows-based application software. Up to four *MotionScope*® PCI camera systems can be operated in a single PC, providing multiple views of a high-speed event. Record rates range from 60 through 8,000 frames per second, depending on the model.

MotionScope® PCI cameras can be started or stopped remotely via a handheld switch or from an external trigger signal generated by an optical, acoustic, or electronic sensor (standard 5 volt TTL signal, or up to 30 Volt DC signal). Once captured, the images of the event reside on the Redlake MASD *MotionScope*® PCI board in the PC until transferred over the computer's PC bus for display and analysis. Playback rates include Single, 1,2,3,4,5,10, 15, 25, 30, 50, 60, 125, 250, 500, 1,000, 2,000, 4,000 and 8,000 frames per second, forward or reverse. Images are archived in the standard Microsoft .AVI file format. Images can be converted to other image file formats.

Because applications requirements vary widely, *MotionScope*® PCI systems are available in several configurations. For Customer convenience, Redlake MASD offers an accessory kit that contains all the equipment needed for most applications. A complete selection of lenses, lights, tripods, etc. to handle nearly any situation in nearly any industry is also available.

S N A P S H O T

High-Speed Camera PC Peripheral

The *MotionScope*® PCI series is a complete easy to install system.

Easy Operation

"Point & Click" operation, learn to operate in minutes

Flexible Trigger Options

Enables record and capture of controlled and intermittent events.

Images in the PC

Makes analysis of images easier, faster and more accurate.

1-800-462-4307



REDLAKE MASD, INC

MotionScope PCI Series

PCI 1000 S, PCI 2000 S, PCI 8000 S, PCI 1000 SC, and PCI 2000 SC

Performance Specifications

Sensor Array:	658 x 496 pixels.
Image Resolution:	Up to 480 x 420 x 8 bit pixels per frame depending on model.
Recording Rates:	60, 125, 250, 500, 1000, 2000, 4000 and 8000 frames per second depending on model.
Shutter Speed:	Electronic shutter operates at a factor of 1x to 20x of set recording rates. Ranges from 1/60th sec. to 10 microseconds depending upon frame rate and model.
Recording Mode	
Manual:	Begins recording when the record button is clicked. Continues to record and store images in memory until the stop button is clicked.
Trigger:	Begins recording when the record button is clicked. Continues to record and store images in memory until an external trigger signal is received. The adjustable trigger position (0%-100%) determines how many frames are stored before and after the trigger signal is received (time zero).
Frame Storage	
Standard:	Up to 16,384 frames, depending on model.
Enhanced:	Up to 32,768 frames, depending on model.
Maximum:	Up to 65,536 frames, depending on model.
Playback Rates:	Playback mode at 1, 2, 3, 4, 5, 10, 15, 25, 30, 50, 60, 125, 250, 500, 1000, 2000, 4000 and 8000 frames per second, forward and reverse. Single step mode, forward and reverse.
Multi-Camera Display:	Application software supports up to 4 PCI cameras in a single PC.
Menu Display:	Mode (Live, Record, Play), Frame #, Time of Frame (in ms), Camera #, Event #, F/Sec. Record, Shutter Speed, Trigger Point, F/Sec. Play, Reticle Distance, Velocity, Data, Load and Save files, Setup, and Help.
Operator Environment:	Point & click environment for Windows 2000 and Windows NT® 4.0 with Service Pack 6.
Trigger Input:	Standard TTL signal up to 30 Volts DC. BNC connector.
Video Out:	RS-170 (NTSC or PAL compatible) output to VCR or external monitor.
Phase-Lock:	Multiple PCI camera systems can be Phase-Locked to insure that frame zero is identical on each PCI camera system.
Lens Mount:	Standard C-mount.
Power Requirement:	+5V @ 2 Amps, + 12V @ .8 Amp per PCI Systems (20 Watts total)
Board size:	Full size PCI board requires 2 slot spaces to accommodate memory.
Camera Size:	2.5" H x 2.5" W x 4" L. Weight: 1.5lbs (.7kg)
Recommended PC:	Minimum Pentium II with MMX technology, graphics display of 1024 x 768, 128MB DRAM, 3+GB Hard Drive, CD ROM Drive, 2 or more PCI slots. CDR, Zip or Jazz drive recommended.

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Note: Specifications are typical and subject to change. M105-00

