

Flexibility and Performance

DVR Express® CLI60 Video Recorder Card

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Single card recording solution delivers performance, reliability, and simplicity

The DVR Express® CLI60 is a complete recording solution on a single PCI card. The CLI60 provides a direct path from its video inputs to attached hard disk storage, yielding outstanding recording performance.

The CLI60 is a true recording subsystem that works in low-cost desktop computers and high-powered workstations. Software on the host computer initiates and terminates recording, but no computer resources are utilized for writing video data to storage. The computer can control other devices and run other applications without reducing video recording performance.

SCSI storage interface for flexible, cost-effective drive connectivity

Up to 15 Ultra160/320 SCSI drives can be attached to the CLI60. The drives may be located inside the computer chassis, or in an external chassis. Hot-swappable drive configurations are supported. Drives, and drive accessories are readily available from many suppliers.

Multi-camera, compact, and portable configurations

The small size and limited computer requirements of the CLI60 allow for configuration of compact and portable systems. Multi-camera configurations are easily managed. Install additional CLI60 cards to record from additional cameras.

Compatible with sophisticated video recording software packages from IO Industries

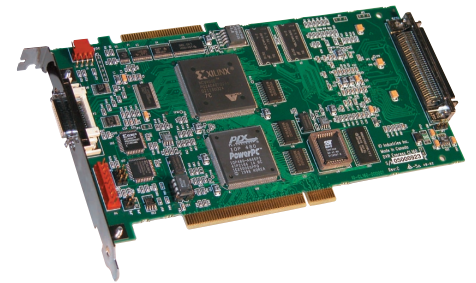
The CLI60 is fully supported by IO Industries Streams™ 5.0 and IO Industries Video Savant® 4.0 digital video recording software packages.

Applications in Science, the Military, Industry, and Entertainment

- General Digital Video Recording
- Ultra High-Resolution Image Capture
- PIV (Particle Image Velocimetry), 2D, 3D
- Remote Sensing
- High-Resolution Surveillance
- Confocal Microscopy
- Special Effects Recording
- Computer Display (DVI output) Recording
- Industrial Process Recording



Single PCI card solution for video capture direct to SCSI hard disk.



DVR Express CLI60 Highlights

- Ideal for recording multiple medium data rate cameras for long durations
- Continuous, uncompressed video recording to disk at rates up to 141 MByte/s for up to 31 hours
- Supports Camera Link Base, and LVDS camera formats
- Supports Camera Link Medium, Full, and Full-80 bit camera formats using IO Industries Camera Link Adapter cards and multiple CLI60 cards
- Live video display on host monitor during recording
- Video frame time stamping
- Record multiple cameras by installing multiple cards in system
- Maximum storage capacity is 4500 GB
- 32-bit/33 MHz PCI short card

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The Experts in DVR Technology
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Comprehensive Features

DVR Express® CLI60 Specifications

PC Interface

Form Factor	PCI short card
PCI Slot	Works only in 32-bit PCI slots, 5 Volt, PCI 2.2
PCI Bus	32-bit/33 MHz PCI card
Operating System	Microsoft Windows XP Pro and Windows 2000

Video Interface

Video Inputs	Input 1 - Camera Link Base (connector on PCI bracket) Input 2 - LVDS up to 18 bits (connector on internal card edge) IO Industries Camera Link Full Adapter - Camera Link Full (and Medium) cameras; requires 4 CL160 cards IO Industries Camera Link Full Plus Adapter - Camera Link Full-80 bit cameras; requires 5 CL160 cards
Maximum Input Clock Frequency	80 MHz
Maximum Input Data Rate	80 MHz x 24 bits
Camera Readout Formats	Area scan and line scan
Pixel Formats	Monochrome 8 to 16 bits Color RGB-24 bit, RGB-30 bit ¹ , and 4 channel 32-bit ¹
Acquisition from Multiple Cameras	Install multiple CL160 cards to record from multiple cameras
Triggering	LVDS - 1 programmable output, 2 inputs TTL - 3 programmable outputs, 3 inputs Camera Link CC lines (programmable)
Multi-Card Mode for High-Speed Cameras	Install multiple CL160 cards and use multi-board synch feature to record at data rates of N x 141 MB/s ²
Video Pre-Processing Options	Time stamp (Universal Time Code) on video frames Programmable frame skipping Programmable area of Interest (AOI) capture Programmable frame size scaling
Live Video Display	Live video streamed over PCI to host memory for display on host monitor when recording is on or off
Video Playback	Video playback from CL160 to host memory for display/analysis

Video Storage

Hard Drive Interface	Ultra160 SCSI
Number of Drive Channels	1 channel
Hard Drive Compatibility	Seagate Ultra160 and Ultra320 SCSI hard drives, all 10K/15K RPM models; For other manufacturers, contact IO Industries
Maximum Sustained Recording Rate	141 MB/s ²
Maximum Storage Capacity	4500 GB ² (15 drives x 300 GB per drive)
Data Storage Protection	No protection against drive failure; RAID 0 data striping across all drives for maximum throughput
Data Compression	Lossless storage Pixel bits packed for 100% efficiency in data storage; Reduces storage requirement for 10-bit and 12-bit cameras
Storage Configuration	Internal drives connected directly to CL160 with 68-pin twisted LVD cable; External JBOD chassis available from 3rd party manufacturers (contact IO Industries for details)

Application Software Support

	IO Industries Streams 5.0 digital video recording software IO Industries Video Savant 4.0 digital video recording software
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¹Requires use of IO Industries Camera Link Adapter Card

²1 GB = 1000 MB = 1 000 000 bytes