



DVR5100 Series Digital Video Recorder

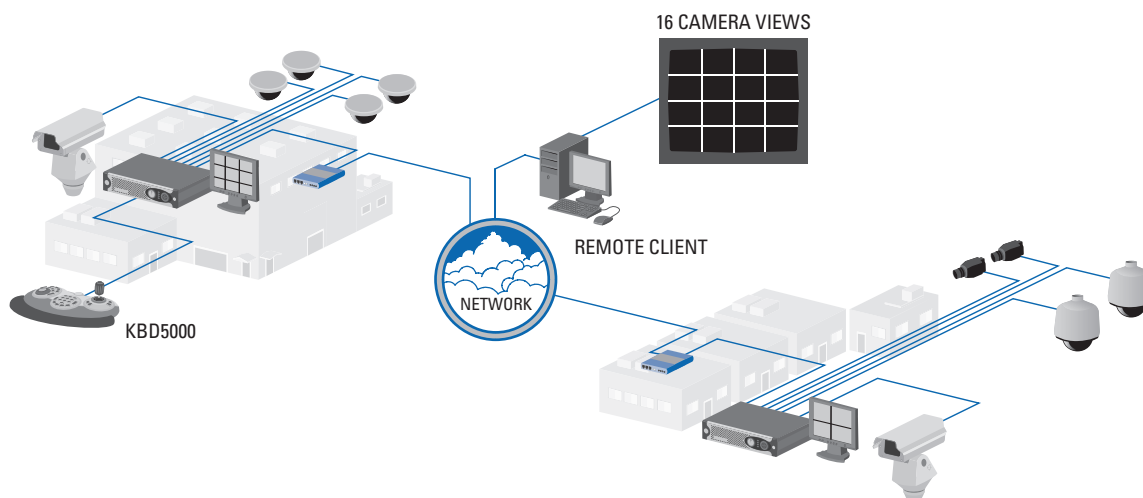
4/8/16 CAMERA INPUTS, 250 GB-1.5 TB STORAGE, ENDURA ENABLED™

Product Features

- 4, 8, or 16 Video Inputs
- Embedded Linux® Operating System
- Record Video at up to 480/400 ips (NTSC/PAL) at CIF, 2CIF, or 4CIF Resolution, Programmable on a Per-Input Basis
- MPEG4-Based Compression Optimized for Surveillance Requirements
- Continuous, Scheduled, Motion, Alarm and/or Event Recording
- Up to 1.5 TB of Internal Storage Including EnduraStor™ Optimization
- DVR Operation from Front Panel Controls, USB Keyboard, KBD5000, or Remote Client
- DVR Configuration and Programming Through Standard USB Keyboard and Mouse, Front Panel Controls, KBD5000, or Remote Client
- Operating System on Compact Flash and Engineered Hard Drive Cooling System for Enhanced Reliability
- Remote Client Application for Live Monitoring of One or More Cameras, Full Search and Playback, Remote Export of Video, and Remote Administration and Configuration



- Digital Video Authentication
- PTZ Control Using Coaxitron®, Pelco D, or Pelco P Protocols
- Full System Diagnostics Monitoring and Logging
- Single Button Export for Fast, Intuitive Video Export



IMPORTANT NOTE: PLEASE READ. The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco representative to discuss your specific requirements. As shown above, one DVR5100 Remote Client application can access one DVR at a time. Each DVR5100 can support up to five simultaneous remote client connections.



C1695 / REVISED 7-07



International Standards Organization Registered Firm; ISO 9001 Quality System



PRODUCT OVERVIEW

The **DVR5100** is the first product from Pelco to be Endura Enabled™. Endura Enabled means the product delivers features and benefits from the Endura™ digital video surveillance platform for stand-alone operation. Further, it denotes the ability of the product to work in an Endura system. The **DVR5100** digital video recorder leverages Endura technologies to deliver superior recording performance and video quality along with intuitive, easy operation. The **DVR5100** captures unparalleled video quality at CIF, 2CIF, and 4CIF resolution at up to 480/400 (NTSC/PAL) images per second (ips). The DVR5100 can be integrated with an Endura network with a future software release.

The **DVR5100's** remarkable performance is enhanced by the use of EnduraStor™ storage optimization technology. EnduraStor allows video recorded at higher frame rates to be automatically reduced to a lower frame rate after a preconfigured period of time, saving valuable hard disk drive space. Further, the use of new recording frame rate and resolution options, in conjunction with EnduraStor, provides the benefit of having 30/25 ips video available for the duration of the EnduraStor delay period, while still meeting video retention targets achievable with time lapse recording. EnduraStor, combined with built-in video motion detection capabilities and programmable recording schedules, allows the user to harness the performance of the **DVR5100** while optimizing the required storage capacity and cost.

The included USB keyboard and mouse can be connected to the **DVR5100's** USB ports to configure settings quickly and easily, saving valuable time and expense in installing and programming the DVR. Convenient front panel controls with integrated joystick, jog, and shuttle, combined with an intuitive and simple icon-based user interface (UI), make using the DVR effortless. For users that prefer to operate the DVR from a USB keyboard, the supplied keyboard template calls attention to the convenient hot keys available for operation. The DVR5100 provides integrated operation of Pelco pan/tilt/zoom (PTZ) cameras through Coaxitron®, Pelco D, or Pelco P protocols. An innovative single-button export feature simplifies the exporting of video.

Flexible viewing options allow users to optimize the DVR for their particular application requirements. Video can be displayed on VGA, NTSC/PAL composite, or S-Video monitors. The main monitor can display one, four, nine, or sixteen images. Users can independently view live and playback video on the same screen. In addition, a programmable spot monitor provides a live sequencing display on a composite monitor for use as either a call monitor or public view display.

The **DVR5100** uses internet protocol-based networking for remote accessibility and control of the DVR. All connections are made over a secure VPN session. Bandwidth throttling is supported on a per-connection basis, enabling up to five users to optimize their experience with the **DVR5100** based on their available network bandwidth.

The powerful remote client offers the ability to view and control all cameras from one **DVR5100** using a convenient drag and drop approach. Video can be searched based on time, date, camera, motion, and events and designated clips can be exported to the remote PC. The DVR5100 can be fully administered from the remote client. Further, the remote client can be utilized for more sophisticated configuration options. For example, users can group multiple alarms and motion triggers into Events which can be effective in eliminating false alarms. Finally, the remote client can be used to create scripts to orchestrate the DVR's response to alarm, event, or user triggers.

Optimized to capture high quality video with a maximum recording speed of 480/400 images (NTSC/PAL) at CIF, 2CIF, and 4CIF resolution, the **DVR5100** shatters previous performance marks for mainstream DVRs. The combination of enterprise class recording capabilities, ample internal storage, remote accessibility, and the reliability and assurance found in Pelco products makes this the ideal DVR for mainstream video surveillance applications.

TECHNICAL SPECIFICATIONS

SYSTEM

Operating System	Linux
User Interface	Semitransparent on-screen icon-based overlays

VIDEO

Video Standards	NTSC/PAL composite		
Input	NTSC/PAL S-Video, composite		
Output	VGA (1024 x 768)		
	60 Hz capability for NTSC		
	75 Hz capability for PAL		
Video Encoding	MPEG-4		
Video Inputs	4/8/16		
Video Resolutions	Format	NTSC	PAL
	4CIF	704 x 480	704 x 576
	2CIF	704 x 240	704 x 288
	CIF	352 x 240	352 x 288
Video Recording Rate			

Resolution	Normal Recording Rates	EnduraStor™ Rates
4CIF	NTSC 6, 10, 15, and 30 ips	5*, 3*, 2, 1* ips, 1 image/2 seconds* 1 image/3 seconds* 1 image/5 seconds*
	PAL 5, 8.3, 12.5, 25 ips	
2CIF	NTSC 6, 10, 15, and 30 ips	5*, 3*, 2, 1* ips, 1 image/2 seconds* 1 image/3 seconds*
	PAL 5, 8.3, 12.5, 25 ips	
CIF	NTSC 6, 10, 15, and 30 ips	5*, 3*, 2, 1* ips, 1 image/2 seconds* 1 image/3 seconds*
	PAL 5, 8.3, 12.5, 25 ips	

*Designated EnduraStor rates are recorded at 30/25 ips unless EnduraStor is enabled, at which point recorded video is pruned to the designated image rate.

Video Inputs/Connectors	4/8/16, BNC, looping, 75 ohms, 0.5–1 Vp-p
Video Termination	Hi-Z, 75 ohms, software controlled
Video Display Speed (Main Monitor)	Up to 180 CIF resolution ips. Video recorded at slower frame rates will display at the slower frame rate in live display.
Video Display Modes (Main Monitor)	Full screen, 2 x 2, 3 x 3, and 4 x 4
Video Display Speed (Sequence Monitor)	30 ips
Video Display Modes (Sequence Monitor)	Full screen
Video Outputs	1 BNC, NTSC/PAL, 75 ohms, 1 Vp-p 1 S-Video, NTSC/PAL 1 VGA 1 BNC, NTSC/PAL Spot Monitor

AUDIO

Audio Decoding	G.711 speech codec
Audio Bit Rate	64 kbps
Audio Levels	
Input	Line-level input
Output	Line-level output
Audio Connectors	3.5 mm monaural jacks:
Audio Inputs	2 for 4- and 8-channel models;
	4 for 16-channel models
Audio Outputs	1

PTZ CONTROL

PTZ Interface	Front panel, USB keyboard, KBD5000, or through remote client
PTZ Protocols	Pelco D, Pelco P, and Coaxitron

ALARM/RELAYS

Alarm Inputs	1 per camera, programmable, 5.0 VDC, 10 kohms, triggered, supervised/unsupervised
Relay Outputs	
4 or 8 channels	2 relays, N.O./N.C., form-C relay, 30 VDC, 1 A
16 channels	4 relays, N.O./N.C., form-C relay, 30 VDC, 1 A

NETWORK

Interface	Ethernet RJ-45 port (1000BaseT to 10/100/1000 Mbps)
-----------	---

AUXILIARY INTERFACE

USB 2.0	1 high-speed USB 2.0 port on the front panel 2 high-speed USB 2.0 ports on the rear panel
RS-422	1 RS-422 port, programmable baud rate up to 19200

FRONT PANEL INDICATORS/FUNCTIONS

Indicators	
Power	Blue
HDD Activity	Yellow
Network Activity	Green
Network Status	Green, amber, red
Unit Status	Green, amber, red
Buttons	Configuration/reset Power

POWER

Power Input	100-240 VAC, 50/60 Hz, autoranging
Power Supply	Internal
Power Consumption	136 W, 465 BTU/H (maximum)
Cable Type	
USA Standard	117 VAC, 3 prongs, 6 ft or 1.8 m
European Standard	220 VAC, 3 prongs, molded connector, 6 ft or 1.8 m
UK Standard	250 VAC, 3 prongs, molded connector, 6 ft or 1.8 m

ENVIRONMENTAL

Operating Temperature	50° to 95°F (10° to 35°C)
Storage Temperature	-40° to 149°F (-40° to 65°C)
Operating Humidity	20% to 80%, noncondensing
Maximum Humidity Gradient	10% per hour
Operating Altitude	-50 ft to 10,000 ft (-16 m to 3,048 m)
Operating Vibration	0.25G at 3 Hz to 200 Hz at a sweep rate of 0.5 octave/minimum

TECHNICAL SPECIFICATIONS

PHYSICAL

Construction	Steel cabinet
Finish	Front panel: gray metallic with black end caps Chassis: black matte finish
Dimensions	17.0" D x 17.1" W x 3.5" H (43.2 x 43.4 x 8.9 cm)
Mounting	Desktop (feet) or rack, rack mount kit included 2 RU per unit
Unit Weight	28.8 lb (13.06 kg)
Shipping Weight	38 lb (17.24 kg)

REMOTE CLIENT SPECIFICATIONS

Processor	
Minimum	2.4 GHz Pentium® IV
Optimum	3.2 GHz Pentium IV
System Memory	
Minimum	512 MB RAM memory
Optimum	1 GB RAM memory
VGA Card	AGP VGA card with 128 MB RAM and DirectX® 8.1 or later hardware acceleration with support for 1280 x 1024 resolution monitors
Monitor	VGA monitor with 1280 x 1024 display resolution
Operating System	Windows® XP Professional, SP2 only

MODEL NUMBERS

Model	Camera Inputs	Hard Drive Space (GB)	Optical Drive
DVR5104DVD-250	4	250	DVD
DVR5104DVD-500	4	500	DVD
DVR5104DVD-800	4	800	DVD
DVR5104DVD-1000	4	1000	DVD
DVR5104DVD-1500	4	1500	DVD
DVR5108DVD-250	8	250	DVD
DVR5108DVD-500	8	500	DVD
DVR5108DVD-800	8	800	DVD
DVR5108DVD-1000	8	1000	DVD
DVR5108DVD-1500	8	1500	DVD
DVR5116DVD-250	16	250	DVD
DVR5116DVD-500	16	500	DVD
DVR5116DVD-800	16	800	DVD
DVR5116DVD-1000	16	1000	DVD
DVR5116DVD-1500	16	1500	DVD

SUPPLIED ACCESSORIES

Power Cables	1 USA standard, 1 European standard, 1 UK standard
Resource CD	Contains DVR5100 remote client software and manuals
Recovery DVD	Contains DVR5100 server boot image for emergency recovery
Rack Mounting Kit	1
USB keyboard/template	Used for configuration and operation
USB mouse	Used for configuration only
USB keyboard and mouse make configuration more efficient. USB keyboard can also be used for operation.	

OPTIONAL ACCESSORIES

KBD5000	USB keyboard with joystick, jog shuttle, and keypad modules can be used for control and programming.
---------	--

CERTIFICATIONS

- CE, Class B
- UL Listed
- UL Listed to Canadian safety standards
- FCC, Class B
- C-Tick

At the time of this printing, all other certifications are pending. Please consult the factory, our Web site (www.pelco.com), or the most recent B.O.S.S.® update for the current status of certifications.

STANDARDS/ORGANIZATIONS

- Pelco is a member of the MPEG-4 Industry Forum.
- Pelco is a member of the Universal Plug and Play (UPnP) Forum.
- Pelco is a member of the Universal Serial Bus (USB) Implementers Forum.
- Pelco is a contributor to the International Standards for Organization/Electrotechnical Commission (ISO/IEC) Joint Technical Committee 1 (JTC1), "Information Technology," Subcommittee 29, Working Group 11.
- Compliant with ISO/IEC 14496 standard (also known as MPEG-4).
- Compliant with International Telecommunication Union (ITU) Recommendation G.711, "Pulse Code Modulations (PCM) of Voice Frequencies."

Notice: Judgment as to the suitability of the products for users' purposes is solely the users' responsibility. Users should refer to the Operation manuals for cautionary statements regarding user selected options and how they might affect video quality. Users shall determine the suitability of the products for their own intended application, picture rate and picture quality. In the event users intend to use the video for evidentiary purposes in a judicial proceeding or otherwise, users should consult with their attorney regarding any particular requirements for such use.



Pelco Worldwide Headquarters:

3500 Pelco Way, Clovis, California 93612-5699 USA
USA & Canada Tel: (800) 289-9100 • FAX (800) 289-9150
International Tel: (559) 292-1981 • FAX (559) 348-1120
www.pelco.com

Pelco, the Pelco logo, Coaxitron, and B.O.S.S. are registered trademarks of Pelco.
 Endura, Endura Enabled, EnduraStor, and Trulmage are trademarks of Pelco.
 Direct X and Windows are registered trademarks of Microsoft Corporation.
 Pentium is a registered trademark of Intel Corporation.
 Linux is a registered trademark of Linus Torvalds.
 Specifications subject to change without notice.
 ©Copyright 2007, Pelco. All rights reserved.