DVR5300 Series Digital Video Recorder System

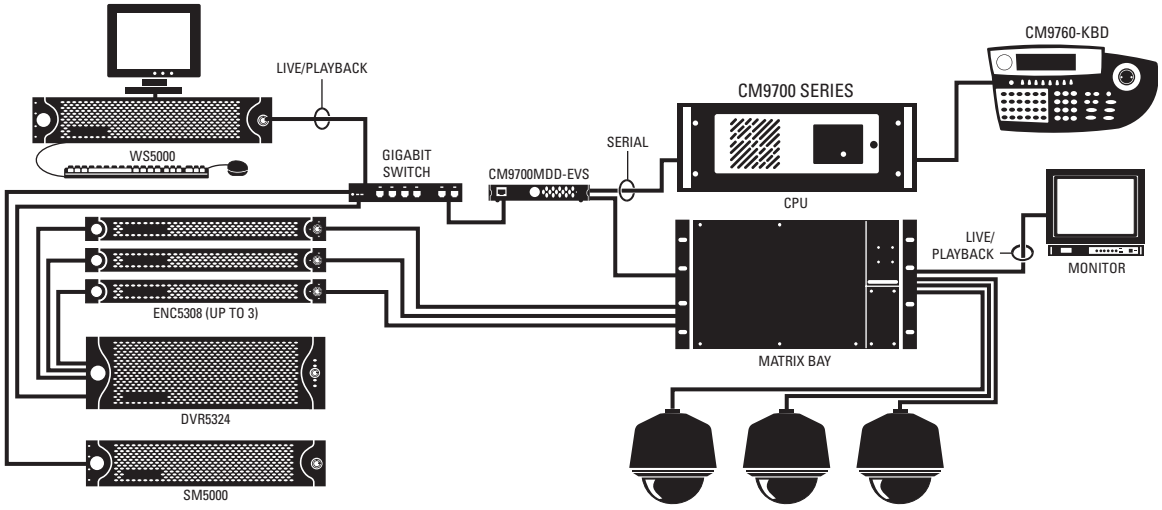
UP TO 48 INPUT STREAMS, UP TO 9 TB STORAGE, HOT-SWAPPABLE DRIVES

Product Features

- Small Footprint Optimizes Space Planning for Enterprise Installations
- Records Video and Audio from up to 48 Cameras, Each at 30 Images Per Second (ips), 4CIF Resolution
- Records Analog Video from ENC5300 Series USB Multichannel Encoders
  - 8 or 16 MPEG-4 Video Input Channels with 8 or 16 G.711 Audio Input Channels
  - Up to 30 High Quality 4CIF ips Per Input
  - 8 or 16 Programmable Alarm Inputs and 2 or 4 Relay Outputs
  - USB 2.0 Connection to DVR5300 with Plug-and-Play Configuration
  - Coaxitron® PTZ Control on Each Input
- Records Digital Video from Endura® Video Encoders
- Expandable Storage Capacity Using the Endura iSCSI Storage Expansion Boxes (SEB5100)
- All Video is Digitally Signed at the Encoding Source for Authentication
- EnduraStor™ Storage Management System
- Limited Video Editing on Exported Video

ENC5300 (TOP) AND DVR5300 (BOTTOM)

- Fault Tolerance Through Use of RAID 5 Storage and Redundant Power Supplies and Fans
- System Diagnostics, Monitoring, and Error Logging
- Compatible with Pelco's CM9700 Matrix Switchers
- DVR Failover Support Using CM9700 Matrix Switchers



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.

Endura distributed, network-based products are available only to certified dealers/integrators. Please contact your local sales representative for details on certification applications and requirements. Additional information on Endura products and certifications may be found at http://www.pelco.com/endura.

PRODUCT OVERVIEW

The Endura® **DVR5300 Series** digital video recorder delivers high performance video recording and flexible configuration options to the demanding enterprise surveillance market. The unit's modular design lets users optimize both the number of inputs and storage capacity to meet their specific requirements. Users can further customize installations with the unit's ability to record both digital and analog video and audio.

As part of an Endura system, the **DVR5300 Series** functions as a central recording element. It records IP streams from either Endura-compatible video encoders or cameras or from analog cameras through **ENC5300 Series** USB multichannel video encoders.

ENC5300 Series encoders work exclusively with the **DVR5300 Series** digital video recorder. Each **ENC5300** encodes up to 8 or 16 channels of live analog video into MPEG-4 video streams at up to 4CIF resolution and 30 ips per channel. The **ENC5300** also encodes 8 or 16 audio inputs simultaneously into G.711 digital audio streams. The **ENC5300** sends these video and audio streams directly to the **DVR5300** over a USB 2.0 interface, which saves network ports for other devices.

Any combination of **ENC5300** units (up to three) can be connected to a single **DVR5300**. For example, add one ENC5316 and one ENC5308 to a DVR5324 to record up to 24 analog video inputs. Add three ENC5316 units to a DVR5348 to record up to 48 analog video inputs. This lets the user customize the number of video inputs and storage for each recording site.

Video can be viewed, played back, and controlled from any Endura viewing system such as the WS5000, VCD5000, or NET5301R decoder. When viewing streams generated by the **ENC5300** in an Endura system, streams will be viewed at their recorded rate.*

Video from the **ENC5300** and the **DVR5300** can be displayed also through a CM9700 matrix switch using the CM9700MDD-EVS. This lets you integrate the **DVR5300** and **ENC5300** units seamlessly with an analog matrix switch. Users can operate their existing systems with their familiar controls and interface.

Designed with system reliability in mind, the **DVR5300 Series** incorporates a RAID 5 storage array, eliminating downtime caused by a single hard disk drive failure. Further, the use of redundant power supplies eliminates single points of failure.

The **DVR5300 Series** is capable of continuous, scheduled, alarm/event, and motion recording. Pre- and post-alarm recording is also available and is fully programmable on a per-channel basis. The **DVR5300 Series** maximizes storage efficiency using EnduraStor™ technology. This user-selectable option records and retains real-time video for a designated delay period. After the delay period, recorded video is pruned to a lower frame rate, freeing valuable storage capacity. All alarm or motion based video is kept at its original recording rate. As an alternative to time-lapse recording, EnduraStor makes real-time video available when users need it most.

All video is digitally signed at the encoder to eliminate any potential for tampering. Video authentication can be verified before being played back with the Endura video player.

Selected video can be exported based on time, alarm, or other criteria. This video can then be edited.

Diagnostics are systemized with other Endura products and can be reported to the Endura system. Administrators can view the status of individual components in realtime, thereby preventing failures.

Enterprise recording applications require unparalleled reliability, redundancy, flexibility, and compatibility with current and future technologies. The **DVR5300 Series** delivers a modular, scalable, highly reliable, high performance recording system that is ideally suited for enterprise applications.

EnduraView™ is not supported by the **ENC5300.*

TECHNICAL SPECIFICATIONS

SYSTEM

DVR5300

Operating System	Linux®
User Interface	Remote operation from WS5000 Endura Workstation or VCD5000
Video Storage Capacity	Up to 6.98 TB, expandable using SEB5100
Interface	SATA, hot-swappable
RAID Level	5

VIDEO

Video Standards	NTSC/PAL/EIA/CCIR composite	
Video Compression (Coding)	MPEG-4	
Video Resolutions	NTSC	PAL
4CIF	704 x 480	704 x 576
2CIF	704 x 240	704 x 288
CIF	352 x 240	352 x 288
Video Inputs (ENC5300)	8 or 16, BNC, looping, 0.5-1 Vp-p	
Video Sequence Output (ENC5300)	1, BNC, 1 Vp-p	
Video Termination	Software controlled	

AUDIO

Audio Encoding	G.711 speech codec
Audio Bit Rate	64 kbps
Audio Levels	1 Vp-p, 10 kohms
Audio Connectors (ENC5300)	8 or 16, 3.5 mm monaural
Connector Tip	Signal high
Connector Sleeve	Common
Audio Inputs	Line in

NETWORK

DVR5300

Interface	2 Gigabit Ethernet RJ-45 ports (1000Base-T)
Security	2 modes: secure mode (device authentication) and unsecure mode

PTZ CONTROL

PTZ Interface	Video in
PTZ Protocols	Coaxitron (ENC5300) Pelco D/Pelco P (DVR5300)

ALARMS/RELAYS

ENC5300

Alarm Inputs	8 or 16, programmable, 5.0 VDC, 10 kohms, triggered, CM9760-ALM compatible
Relay Outputs	2 or 4, form-C relay, 30 VDC 2 A or 125 VAC 0.5 A, CM9760-REL compatible

VIDEO ACTIVITY DETECTION

ENC5300

Zones	3 plus background zone
Zone Types	Any shape, user-definable in 16 x 16 pixel blocks
Sensitivity	Adjustable

AUXILIARY INTERFACES

DVR5300

USB 2.0	4 high-speed USB 2.0 ports on rear panel
Camera Control	1 RJ-45 connector; RS-422 from DVR5300 to CM9760-CDU-T; Pelco D/Pelco P

ENC5300

USB 2.0	1 high-speed USB 2.0 port on rear panel
Alarms	2 or 4, 8-pin terminal block
Relays	1 or 2, 6-pin terminal block

FRONT PANEL INDICATORS/FUNCTIONS

DVR5300

Power	Blue
CPU Activity	Yellow
Network Activity	Green
Network Status	Green, amber, red
Unit Status	Green, amber, red
Individual Drive Status	Green, red
Power Button	On, off (soft), off (hard)

ENC5300

Power	Blue
USB Video Status	Red
USB Video Operation	Green
Unit Status	Green, amber, red

POWER

DVR5300

Power Input	100-240 VAC 50/60 Hz, autoranging
Power Supply	Internal, dual-redundant, hot-swappable
Cable Type	2 USA (117 VAC), 2 European (220 VAC), 2 UK (250 VAC) All, 3 prongs, molded connector, 6 ft (1.8 m) cord
Power Consumption	Operating Maximum
100 VAC	339 W, 3.40 A, 1157 BTU/H
115 VAC	335 W, 2.95 A, 1143 BTU/H
220 VAC	332 W, 1.58 A, 1133 BTU/H

ENC5300

Power Input	100-240 VAC, 50/60 Hz, 0.7 A, autoranging
Cable Type	1 USA (117 VAC), 1 European (220 VAC), 1 UK (250 VAC) All, 3 prongs, molded connector, 6 ft (1.8 m) cord
Power Consumption (maximum)	100 VAC 40 W, 137 BTU/H 115 VAC 40 W, 137 BTU/H 200 VAC 40 W, 137 BTU/H

TECHNICAL SPECIFICATIONS

MODELS

	Input Streams	Drives	Internal Storage	Video Storage
DVR5324-1500	Up to 24	6*	1.5 TB	1.16 TB
DVR5324-3000	Up to 24	6*	3.0 TB	2.32 TB
DVR5324-6000	Up to 24	12	6.0 TB	4.65 TB
DVR5324-9000	Up to 24	12	9.0 TB	6.98 TB
DVR5348-1500	Up to 48	6*	1.5 TB	1.16 TB
DVR5348-3000	Up to 48	6*	3.0 TB	2.32 TB
DVR5348-6000	Up to 48	12	6.0 TB	4.65 TB
DVR5348-9000	Up to 48	12	9.0 TB	6.98 TB
*All 6-drive models include 6 empty hard drive carriers.				

ENC5308	8-channel USB multichannel video encoder that encodes video, audio, and control data for transmission over USB 2.0 to a DVR5300 Series digital video recorder.
ENC5316	16-channel USB multichannel video encoder that encodes video, audio, and control data for transmission over USB 2.0 to a DVR5300 Series digital video recorder.

SUPPLIED ACCESSORIES

DVR5300

6 power cords (2 USA standard, 2 European standard, 2 UK standard)
Rack mount kit (brackets, rails, and hardware)
3 USB 2.0 cables with labels

ENC5300

3 power cords (1 USA standard, 1 European standard, 1 UK standard)
Rack mount kit (brackets, rails, and hardware)
Alarm and relay terminal blocks

ENVIRONMENTAL

Operating Temperature	50° to 95°F (10° to 35°C) at unit air intake (front of unit)
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	0.25 G at 3 Hz to 200 Hz at a sweep rate of 0.5 octave/minute

NOTE: The temperature at the unit air intake can be significantly higher than room temperature. Temperature is affected by rack configuration, floor layout, air conditioning strategy, and other issues. To prevent performance failure and unit damage, make sure the temperature at the unit is continuously within the operating temperature range.

PHYSICAL

DVR5300

Construction	Steel cabinet
Finish	
Bezel	Gray metallic with black end caps
Chassis	Black matte finish
Dimensions	24.3" D x 17.0" W x 5.2" H (61.8 x 43.2 x 13.2 cm)
Unit Weight	
Empty (no storage drives)	51 lb (24 kg)
Fully equipped (12 drives)	67 lb (31 kg)
Shipping Weight	
Empty (no storage drives)	56 lb (26 kg)
Fully equipped (12 drives)	73 lb (34 kg)
Mounting	Rack, 3 RU per unit (Rack ears and screws provided)

ENC5300

Construction	Steel cabinet
Finish	
Bezel	Gray metallic with black end caps
Chassis	Black matte finish
Dimensions	16.7" D x 17.0" W x 1.7" H (42.4 x 43.2 x 4.3 cm)
Unit Weight	13.35 lb (6.1 kg)
Shipping Weight	20 lb (9.1 kg)
Mounting	Rack, 1 RU per unit (Rack ears and screws provided)

CERTIFICATIONS

- CE, Class A
- FCC, Class A
- UL/cUL Listed
- C-Tick
- S-Mark for Argentina
- GOST

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.

OPTIONAL ACCESSORIES

SEB5100 Series	Storage expansion box; adds up to 6.98 TB video storage each; add up to 8 units per DVR5300, up to 49.78 TB of video storage
NVR5000PS	Replacement power supply
HD5000-250	Replacement 250 GB hard drive and carrier
HD5000-500	Replacement 500 GB hard drive and carrier
HD5000-750	Replacement 750 GB hard drive and carrier for DVR5300, NVR5100 and SEB5100 Series units
HDD1500UP	Video storage upgrade kit; includes six 250 GB hard drives and carriers; adds 1.5 TB
HDD3000UP	Video storage upgrade kit; includes six 500 GB hard drives and carriers; adds 3.0 TB

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, Inc. Worldwide Headquarters:
3500 Pelco Way, Clovis, California 93612-5699 USA
USA & Canada Tel: (800) 289-9100 • FAX: (800) 289-9150
International Tel: +1 (559) 292-1981 • FAX: +1 (559) 348-1120
www.pelco.com