

DVR5300 Series Digital Video Recorder System Endura

48 INPUT STREAMS, UP TO 6 TB STORAGE, HOT SWAPPABLE DRIVES

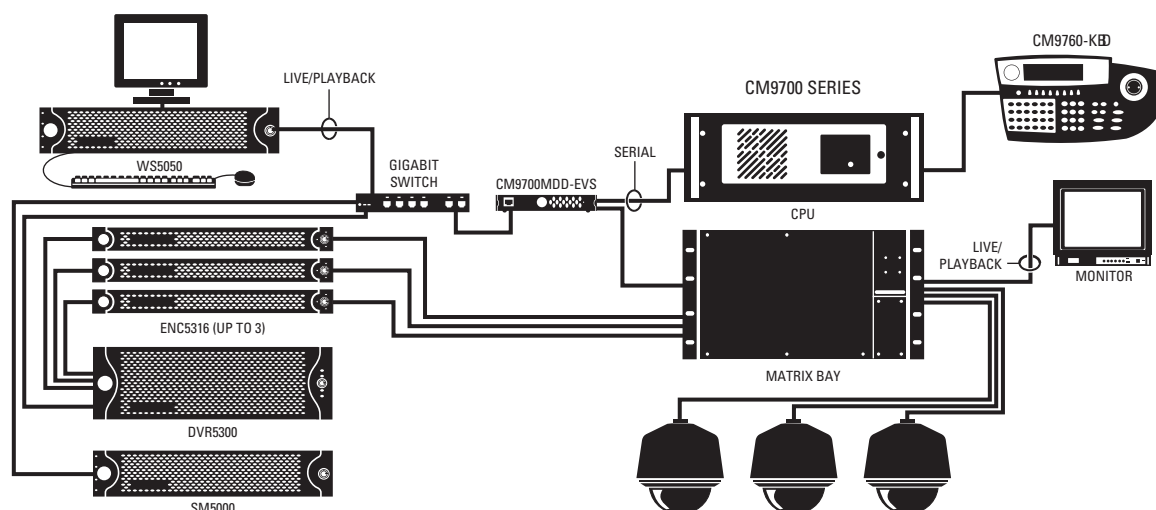
Product Features

- 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 via ENC5316 USB Multichannel Encoders
 - 16 MPEG-4 Video Input Channels with 16 G.711 Audio Input Channels
 - Up to 30 High Quality (4CIF) Images per Second (ips) per Input
 - 16 Programmable Alarm Inputs and 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 Endura Storage Expansion Boxes (SEB5100)
- Authenticated Recording
- EnduraStor™ Storage Management System



ENC5316 (TOP) AND DVR5300 (BOTTOM)

- Limited video editing on exported video
- 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 via CM9700 Matrix Switchers



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 video encoders or from analog cameras via the **ENC5316**.

The **ENC5316** USB multichannel video encoder works exclusively with the **DVR5300 Series** digital video recorder. Each **ENC5316** encodes 16 channels of live analog video into MPEG-4 video streams at up to 4CIF resolution and 30 ips per channel. The **ENC5316** also encodes 16 audio inputs simultaneously into G.711 digital audio streams. The **ENC5316** sends these video and audio streams directly to the **DVR5300** over a USB 2.0 interface.

Up to three **ENC5316s** can be connected via USB to a single **DVR5300** to record up to 48 analog video inputs. This allows for customization of 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 WS5050, VCD5000, or NET5301R decoder. When viewing streams generated by the **ENC5316** in an Endura system, streams will be viewed at their recorded rate.*

Video from an **ENC5316** and **DVR5300** can be displayed also through a CM9700 matrix switch using the CM9700MDD-EVS. This allows the **ENC5316** and **DVR5300** to be seamlessly integrated with an analog matrix switch. Users can operate their existing systems with its 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, a time- and priority-based system that identifies data to be removed when stored video reaches a predefined age.

All video is digitally signed at the encoder to ensure compliance with government requirements. Video authentication can be verified on the system 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 **ENC5316.*

TECHNICAL SPECIFICATIONS

SYSTEM

DVR5300

Processor	Intel® Pentium® 4, 3.2 GHz
Internal Memory	2 GB DDR
Operating System	Linux®
User Interface	Remote operation via WS5050 or VCD5000
System Storage	4 GB miniature hard drive
Video Storage Capacity	Up to 4.76 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	<u>NTSC</u>	<u>PAL</u>
4CIF	704 x 480	704 x 576
2CIF	704 x 240	704 x 288
CIF	352 x 240	352 x 288
Video Inputs (ENC5316)	16, BNC, looping, 0.5-1 Vp-p	
Video Output (ENC5316)	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 k Ω
Audio Connectors (ENC5316)	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 (1000BaseT)
Security	2 modes: secure mode (device authentication) and unsecure mode

PTZ CONTROL

PTZ Interface	Video in
PTZ Protocols	Coaxitron (ENC5316) Pelco D/Pelco P (DVR5300)

ALARMS/RELAYS

ENC5316

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

VIDEO ACTIVITY DETECTION

ENC5316

Zones	3 plus background zone
Zone Types	Any shape, user-definable in 16x16 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

ENC5316

DVR5300	1, USB 2.0
Alarms	4, 8-pin terminal block
Relays	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)
Configuration/Reset Button	Configuration, reboot, reset, cancel

ENC5316

Power	Blue
Status	Green, amber, red
Video (unit)	Green, red
Video (camera)	Green

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 (maximum)	<u>Input Voltage</u>	<u>Watts</u>	<u>BTU/H</u>
	100 VAC	427	1157
	115 VAC	422	1143
220 VAC	405	1133	

Each hard drive consumes approximately 13 W (21.7 VA) during normal operation.

Uninterruptible Power Supply (UPS)

Compatible with APC® Smart-UPS®; managed through the Endura product architecture

ENC5316

Power Input	100-240 VAC, 50/60 Hz, 0.7A, 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)	36 W, 123 BTU/H
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TECHNICAL SPECIFICATIONS

MODELS

Models	Drives	Internal Storage	Video Storage
DVR5300-1500	6*	1.5 TB	1.19 TB
DVR5300-2400	6*	2.4 TB	1.90 TB
DVR5300-3000	6*	3.0 TB	2.38 TB
DVR5300-4800	12	4.8 TB	3.81 TB
DVR5300-6000	12	6.0 TB	4.76 TB

* All 6-drive models include 6 empty hard drive carriers.

All models support up to 48 simultaneous full frame rate/full resolution input streams.

ENC5316	USB multichannel video encoder that encodes video, audio, and control data for transmission over a USB 2.0 link to a DVR5300
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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

ENC5316

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)
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

PHYSICAL

DVR5300

Construction	Steel cabinet
Finish	Front panel: gray metallic with black end caps Chassis: black matte finish
Dimensions	24.3 (D) x 17.0 (W) x 5.2 (H) inches (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, 1 RU between units (Rack ears and screws provided)

ENC5316

Construction	Steel cabinet
Finish	Front panel: gray metallic with black end caps Chassis: black matte finish
Dimensions	16.7 (D) x 17.0 (W) x 1.7 (H) inches (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
- UL Listed
- UL Listed to Canadian safety standards
- FCC, Class A
- Complies with Argentina compliance requirements under Res. 92/98.

At the time of this printing, all other certifications are pending. Please consult the factory, our website (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
- Compliance, 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"



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