DX4500/DX4600 Series Digital Video Recorder
8/16 CAMERA INPUTS, 250 GB TO 8 TB STORAGE, FLEXIBLE SEARCH CAPABILITIES

Product Features

- 8- or 16-Channel Digital Video Recorder
- Up to 480 Images per Second (IPS) Recording Rate
- Up to 704 x 480 (NTSC), 704 x 576 (PAL) Recording Resolution
- Support for KB300A Keyboard Camera Control
- Pelco C Coaxitron®, Pelco D, and Pelco P PTZ Protocols
- Normal, Alarm, Motion, Instant Recording, and Multi-Event Recording
- Scheduled Backup
- HDD Storage Manager
- Increased Frame Rate and Resolution for Event Recording
- Channel Resolution, Quality, and Frame Rate Settings Configurable per Individual Camera
- Picture-On-Picture for Multiscreen Live and Playback Video
- Remote and Web Client
- Local and Remote PTZ Control
- Third-Party PTZ Protocols
- Up to 4 Audio Inputs and 1 Audio Output
- Export and Import System Configurations
- Pre- and Post-Alarm Recording
- Up to 16 Alarm Inputs and Up to 4 Relay Outputs
- Main Monitor for VGA or Analog Display, Analog Spot Monitor
- Multilingual On-Screen Display
- USB, CD-RW, or DVD±RW Media for Video Export
- Event Notifications by E-mail, Emergency Agent, or Sounder
- Time/Date, Bookmark, Event, and Pixel Search

A fully featured and fully affordable entry-level digital video recorder (DVR), the DX4500/DX4600 Series is the next generation in DVRs. Equipped with an embedded operating system, it offers camera capacity, features, and functionality exceeding other DVRs. The DX4500/DX4600 is designed for the entry-level market that requires 8 or 16 camera inputs; greater internal hard drive storage capacity; fast frame rate recording; and efficient playback, search, and export capability. The DX4500/DX4600 not only replaces the traditional VCR and multiplexer combination, it provides a solution that scales from standalone to networked.

Designed to work with today’s broadband networks, the DX4500/DX4600 allows you to view and control the DVR across local or wide area networks. The DX4500/DX4600 remote client allows live viewing and video playback for a maximum of sixteen DX4000 series servers simultaneously. This display can consist of multiple DX4500/DX4600 servers and one DX4004 server. With DS ControlPoint software, the DX456/4600 can connect to a Digital Sentry® system and other DX Series HVRs/DVRs. DS ControlPoint operators can simultaneously view and playback analog video and control cameras from any DX4500, DX4600, DX8000, or DX8100. Operators can also view and playback analog and IP video and control cameras from any Digital Sentry system.

Recording at resolutions of up to 704 x 480 (4CIF), the DX4500/DX4600 captures crystal clear pictures, creating effective footage for later use and retrieval. Each DVR input channel can be configured individually to meet a specific security application requirement for video retention. User-configurable disk partitioning is used to allocate specific hard disk space for storing continuous video data and event-initiated video data. The retention time can be different for retaining continuous recorded video and event-initiated recorded video. Video critical to investigation and archiving is easily exported to a USB memory device or to an optional DVD±RW device.

Exported video is easily reviewed at the DX4500/DX4600, the remote client, or using the export player. The export video preview feature allows you to verify the content and quality of video exported to a disc or a USB drive. At the client, users can easily and quickly capture a video scene, save it in JPEG format, and then store it on the hard drive. User-configurable disk partitioning is used to allocate specific hard
disk space for storing continuous video data and event-initiated video data. The retention time can be different for retaining continuous recorded video and event-initiated recorded video.

Operation of the unit is made easy through the front panel, remote control device, or mouse. For surveillance applications requiring PTZ capability, the DX4500/DX4600 addresses and controls pan/tilt/zoom (PTZ) equipment such as Spectra® domes and mini domes or third-party cameras. The optional KBD300A keyboard operates Pelco and third-party PTZ cameras that support Pelco C (Coaxitron), Pelco D, or Pelco P protocols.

Multi-event recording on the DX4600 supports single-event recording or a combination of alarm, motion, or instant event recording at a resolution, quality, and image rate specific to each camera. With the ability to trigger recording and in response to events (such as alarm inputs, motion detection, and video loss), the DX4600 becomes an automated monitoring engine as well.

The DX4500/DX4600 provides a robust set of features for small- to multiple-site applications. From the incorporation of watermarking technology to prevent alterations to captured video, to the ability to capture log entries, to the inclusion of Pelco’s world renowned customer service promise, the DX4500/DX4600 embodies the ideal entry-level DVR to protect people and assets.

APPLICATIONS

The remote client-to-server connectivity allows operation from a remote location, connecting multiple servers simultaneously. The remote client can be used to operate and administer both DX4500/DX4600 and DX4000 servers installed at multiple locations. For example, small sites can use the DX4000 to record and display video from 1 to 4 cameras; medium sized sites can use the DX4500/DX4600 to record and display video from 8 or 16 cameras. Additionally, the remote client is an application for the Microsoft® Windows Vista® operating system and supports all editions.

The remote client can export a video data file in AVI or native format from a DX4500/DX4600 server, or in AVI format from a DX4000 server. It can also store the file at a specified destination on the remote computer’s hard drive or other allocated storage media. Use the Windows Media Player or similar viewer to view video exported in AVI format. Use the DX4500/DX4600 Export Viewer to playback video exported in native format or to view authenticated watermarked video. Use the DX4000 Backup Player to view authenticated watermarked video.

The remote client can play back video from the live view or search modes of the DX4500/DX4600; the DX4000 can play back video from the remote client’s date/time search mode. For the DX4000, the playback mode, playback controls, and playback speed and volume controls are available in the remote client’s date/time search mode. With only a few clicks of a button, the remote client can quickly print a DX4500/DX4600 live view playback/search mode image or a DX4000 date/time search mode playback video image.

**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.
**TECHNICAL SPECIFICATIONS**

### ELECTRICAL/VIDEO
- **Input Voltage**: 100 to 240 VAC ±10%, 50/60 Hz, autoranging
- **Power Consumption**: Maximum 85 W
- **Signal System**: NTSC/PAL, switchable
- **Operating System**: Linux®-Embedded
- **Recording Resolutions**: NTSCPAL
  - 704 x 480
  - 704 x 576
  - 352 x 240
  - 352 x 288
- **Video Outputs**: 1 main VGA or analog
  - 1 analog spot (displays up to 4 cameras)
- **Video Compression**: MPEG-4
- **Remote Connection**: LAN/WAN
  - TCP/IP
  - 10/100 Mbps
  - Network port
- **Bandwidth Throttle**: Server-based, 128 Kbps to 100 Mbps

### THIRD-PARTY PTZ COMPATIBILITY
- **Third-Party PTZ Device**: Bosch® AutoDome® Day/Night
  - Protocol: Bosch_AutoDome
- **Third-Party PTZ Device**: Samsung™ SCC 641
  - Protocol: Samsung_SCC
- **Third-Party PTZ Device**: LG™ LPT-SD163HM
  - Protocol: LG_SD168
- **Third-Party PTZ Device**: Baxall™ BPD1-RAS916
  - Protocol: Pelco P
- **Third-Party PTZ Device**: American Dynamics™ Speed Dome Ultra VII
  - Protocol: Pelco P

### MAXIMUM IPS RECORDING

<table>
<thead>
<tr>
<th>Model</th>
<th>Format</th>
<th>NTSC IPS</th>
<th>PAL IPS</th>
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<td></td>
<td>2CIF</td>
<td>120</td>
<td>7.5</td>
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<tr>
<td>DX4616</td>
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<td>2CIF</td>
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<tr>
<td></td>
<td>4CIF</td>
<td>120</td>
<td>7.5</td>
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</table>

### AUDIO
- **Decoding**: ADPCM2
- **Bit Rate**: 8 Kbps
- **Input**: Line-level input, 8 Kbps
- **Output**: Line-level output
- **Audio Inputs**: 2 with DX4500, 4 with DX4600, RCA sockets
- **Audio Output**: 1 RCA socket

### MECHANICAL
- **Connectors**
  - Video Inputs: 8 or 16, BNC
  - Video Outputs: 8 or 16, BNC, looping
  - Alarm Input: 8 or 16 N.C. or N.O.
  - Relay Output: 1 or 2, N.C. or N.O.
  - TCP/IP port: RJ-45, 10/100 Mbps
  - Serial Port: RS-422/RS-485 for PTZ control
  - USB Port: 3, USB 2.0 (1 front and 2 back panel)
- **Bandwidth Throttle**: Server-based, 128 Kbps to 100 Mbps
- **Operating Temperature**: 32° to 95°F (0° to 35°C)
- **Relative Humidity**: Maximum 80%, noncondensing
- **Dimensions**: 19.50” D x 16.88” W x 3.75” H (49.5 x 42.9 x 9.5 cm)
- **Note**: Depth includes jog dial to power cord; height includes an additional 0.25” to accommodate rubber feet.

### GENERAL
- **Approximate Weight**: Unit Shipping
  - DX4508-250: 14.30 lb (6.5 kg) 21 lb (9.5 kg)
  - DX4508-250 DVD: 19.74 lb (9.0 kg) 27 lb (12.3 kg)
  - DX4516-250 DVD: 20.28 lb (9.2 kg) 27 lb (12.3 kg)
  - DX4608-250: 16.70 lb (7.6 kg) 24 lb (10.9 kg)
  - DX4608-4000: 22.00 lb (10.0 kg) 28 lb (12.7 kg)
  - DX4616-250: 17.24 lb (7.8 kg) 24 lb (10.9 kg)
  - DX4616-4000: 22.00 lb (10.0 kg) 28 lb (12.7 kg)
  - DX4616-6000: 22.00 lb (10.0 kg) 28 lb (12.7 kg)
  - DX4616-8000: 22.00 lb (10.0 kg) 28 lb (12.7 kg)

### CERTIFICATIONS
- CE, Class A
- FCC, Class A
- UL/cUL Listed

### REMOTE PC CLIENT APPLICATION
- **Minimum PC Requirement**
  - Operating System: Windows® 2000 (SP4) or later and DirectX® 8.1 or later
  - Processor: Intel Pentium® 4
  - Memory: 512 MB
  - Video Card: VGA card with minimum 64 MB video RAM
- **Recommended PC Requirements**
  - Operating System: Windows Vista or Windows XP (SP2)
  - Processor: Intel Pentium 4 (or later), 2.4 GHz
  - Memory: 512 MB
  - Video Card: VGA card with 128 MB video RAM
  - Remote Administration: Full remote control through TCP/IP network

### 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.
PRODUCT MODELS AND FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>DX4508</th>
<th>DX4516</th>
<th>DX4608</th>
<th>DX4616</th>
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<td>Pixel Search</td>
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MODEL NUMBERS

Use the following table to specify and customize your DX4500/DX4600.
For example, the model number for an 8-channel DX4500 with 250 GB of internal storage and an optional DVD±RW optical drive is DX4508DVD-250. The model number for a 16-channel DX4600 with 250 GB of internal storage is DX4616-250.

CREATING MODEL NUMBERS

<table>
<thead>
<tr>
<th>Model</th>
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<th>Storage in GB</th>
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<td>DX4600</td>
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SUPPLIED ACCESSORIES

Power cords (USA and European), USB mouse, remote control, remote client application disc, alarm and relay terminal blocks, and rack mounting kit.

COMPATIBLE PRODUCTS

Esprit Positioning Systems
Spectra Domes

OPTIONAL ACCESSORIES

<table>
<thead>
<tr>
<th>Model</th>
<th>Channels</th>
<th>Disk Drive</th>
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* Optional for the DX4500 and standard for the DX4600. The DVD±RW drive supports double-layer recording.
† Drive configurations for only the DX4600.