

# DX8100 Series Digital Video Recorder

8/16/24/32 CAMERA INPUTS, 250 GB–3 TB STORAGE, ADVANCED SEARCH CAPABILITIES

## Product Features

- Server Dual Display of as many as 72 Cameras Simultaneously
- Expanded ATM/POS Support for up to 16 ATM/POS Devices
- System Health Check Monitoring
- Windows® XP Embedded
- Optional MUX Card Output
- 2 Built-in Audio Channels
- Optional Layer 2 Multicasting for Web Browser Access
- 16-Channel Expansion Box Option
- Internal Storage Capacity to 3 TB
- Up to 704 x 480 Recording Resolution (4CIF)
- Third-Party Dome Support

**The Choice for Professional Security.** As your business becomes more diversified, you need a professional digital video recorder (DVR) that can grow with and stay a step ahead of your security requirements. Your security application might require more cameras or DVR software to provide more sophisticated operation and control features. **The DX8100 Series DVRs** bring a new and innovative hardware platform powered by unparalleled and unique high performance software.

The **DX8100** meets your security needs today and is expandable to meet your future requirements. When you need to quickly and easily add more security cameras, the DX8100-EXP 16-channel expansion unit extends the 8- or 16-channel unit to 24 or 32 channels. With or without the channel expansion unit, all of the cameras take advantage of the increased frame rate of 2CIF and 4CIF recording. The **DX8100** records video up to 480 images per second (ips) at a maximum CIF image size, and it can be configured to record individual or all cameras for continuous, motion detection, alarm, ATM/POS, and normal recording schedules. The **DX8100** can also be set to record at a higher recording rate upon alarm.

For DX8108 or DX8116 systems that require storage beyond the internal capacity of 3 TB, simply add our 2.25, 4.5, 6.75, or 9 TB external storage systems.

If your security application requires enhanced audio recording beyond the two standard audio channels, the optional audio cards provide one audio channel for each video channel. Optional audio cards disable the standard onboard audio channels.

With its 10/100/1000 megabit connection, the **DX8100** can operate as part of a network connecting up to five DX8100s and DX8000s. The remote client can be used to view live or recorded video from any camera connected to any DVR to which it has rights, configure and control pan/tilt/zoom (PTZ) cameras, and perform administrative



(MONITOR, DX8100-EXP, AND KBD300A KEYBOARD NOT INCLUDED.)

tasks with proper login rights. The **DX8100** remote client is included at no extra cost and may be installed at an unlimited number of client workstations

**Innovative New Features and Functionality.** Version 1.2 enhances **DX8100** usability for the ever-changing security environment. With the addition of a second VGA or composite monitor, the unique server dual display capability allows you to simultaneously view up to 72 cameras. Use the server configuration tool to simply drag and drop any camera from any networked **DX8100** server and configure a variety of display views. Different views are easily selected using the extended monitor toolbar. The system operator can now easily perform administrative functions on the primary monitor and view video from critical cameras displayed on the extended VGA monitor. An extended composite monitor can be placed away from the server, as a public view monitor or manager's viewing station, to view video from strategically placed cameras.

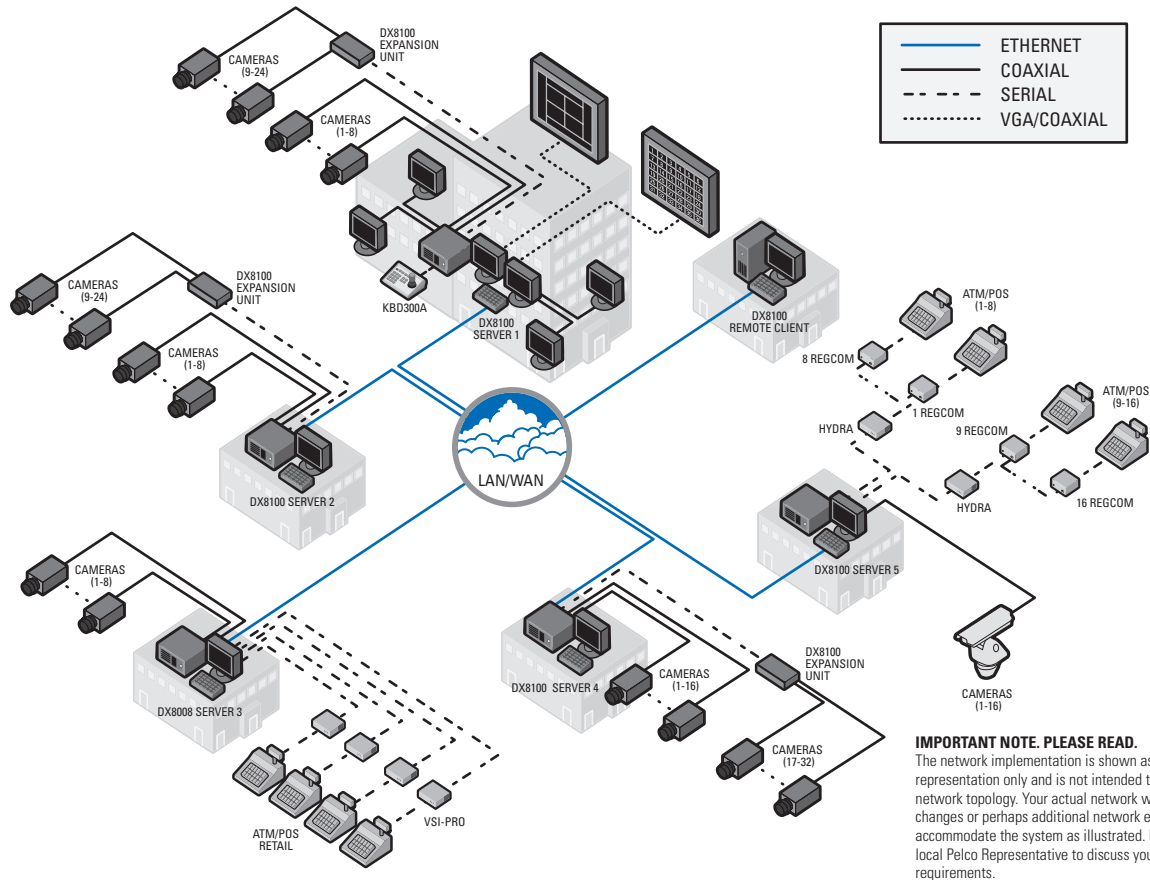
With expanded ATM/POS functionality, each **DX8100** can simultaneously record video and POS transactions for as many as 16 ATM/POS devices.

System health check monitoring provides a quick view of critical CPU components' operating status. It also displays an alert on the server when a component functions outside the operating limit, maximizing the functionality of the **DX8100** for your most critical video security needs.

These new feature innovations, coupled with a proven performance history, continue to make the **DX8100** "the professional's choice of DVR" for your security application.



# TECHNICAL SPECIFICATIONS



## ADDITIONAL FEATURES

- Up to 32 Looping Video Channels
- Up to 480 ips Recording Rate at 320 x 240 Resolution (NTSC)
- Pelco-Engineered Compression Technology Offers High-Quality and Small File Sizes
- Dynamically Adjustable Frame Rate and Image Quality for Motion, Alarm, and Pre-Alarm Recording
- Individual Camera Channel Configuration
- Pre- and Post- Alarm Recording up to 60 Seconds (up to 15 Minutes with Optional 512 MB RAM Upgrade)\*
- 2 Standard Audio Channels
- Up to 32 Channels of Audio Recording (Optional)
- Live Audio Over the Network
- 8/16/24/32 Alarm Inputs and 8/16/24 Relay Outputs
- Relays On/Off from Camera Tree
- Support for up to Six Monitors (VGA and/or Composite)
- 5 x 5 and 6 x 6 Camera Views at DX8100 Server and Client
- On-Screen PTZ Control with Positioning Device Programming Capability
- User-Definable PTZ Presets, Patterns, and Preset Tours
- User-Friendly and Highly Intuitive Graphical User Interface
- Camera View Favorites
- Instant Playback
- Online Help
- Thumbnail, Pixel (Smart Search), ATM/POS Search Modes
- Search by Date/Time, Timeline, Types of Video
- 10/100/1000 Megabit Ethernet Port
- 6X Digital Zoom on Playback
- Network up to 5 DX8100/DX8000s Servers
- 5 Simultaneous Connections per Server
- Client Connects to as many as 100 Servers
- Network Bandwidth Throttling
- Unlimited Web Clients for Live View Only, in Multicast-Enabled Network
- Includes Unlimited Licenses for Remote PC, Web, and Handheld Client
- Local and Remote Administration, Live, Search, and Playback Viewing
- Scheduled Backup
- Export and Import System Configurations
- Remote Software Upgrade Capabilities
- Multilevel Password and User Configuration
- Automatic Image Watermarking
- Multilingual Support (English, French, German, Italian, Polish, Portuguese, Russian, and Spanish)
- Print Still Images from Video
- Export Video and Still Images in Multiple Formats, Including DX8100 Native, AVI, ASF, BMP, TIFF, and JPEG
- Simultaneously Export Multiple Cameras
- Standard DVD-R Burner Writes to CD-R and DVD-R Media
- DX8100 Viewer Included with Video Exports
- API for Development and Integration of Third-Party Applications and XPortal
- External Storage RAID 5 Option
- NTP Time Server Compatible
- KBD300A Keyboard Support for Camera Selection and PTZ Control

\*Pre-alarm time estimate based on 16-channel recording at a resolution of 320 x 240 (CIF) and a frame rate of 5 ips.

# TECHNICAL SPECIFICATIONS

## ELECTRICAL/VIDEO

Input Voltage	100 to 240 VAC $\pm$ 10%, 50/60 Hz, autorangeing*														
Power Consumption	Maximum 350 W														
Signal System	NTSC/PAL														
Operating System	Windows XP Embedded only														
Recording Resolutions	<table> <tr> <td>NTSC</td> <td>PAL</td> </tr> <tr> <td>320 x 240</td> <td>320 x 288</td> </tr> <tr> <td>640 x 240</td> <td>640 x 288</td> </tr> <tr> <td>640 x 480</td> <td>640 x 576</td> </tr> <tr> <td>352 x 240</td> <td>352 x 288</td> </tr> <tr> <td>704 x 240</td> <td>704 x 288</td> </tr> <tr> <td>704 x 480</td> <td>704 x 576</td> </tr> </table>	NTSC	PAL	320 x 240	320 x 288	640 x 240	640 x 288	640 x 480	640 x 576	352 x 240	352 x 288	704 x 240	704 x 288	704 x 480	704 x 576
NTSC	PAL														
320 x 240	320 x 288														
640 x 240	640 x 288														
640 x 480	640 x 576														
352 x 240	352 x 288														
704 x 240	704 x 288														
704 x 480	704 x 576														
Compression	Pelco engineered														
Video Inputs	8/16/24/32 (looping with automatic termination)														
VGA Outputs	1														
Dual Display Card	1 switch-selectable VGA (DB15) or analog (BNC) output														
Analog Video Outputs	1 with DX8108/DX8116; 2 with DX8124/DX8132														
Alarm Input Terminals	8/16/24/32 (user selectable, N.O./N.C.)														
Relay Output Terminals	8/16/24 (user selectable, N.O./N.C.)														
Relay Contact Ratings <sup>†</sup> Rated (Resistive) Load	0.5 A at 120 VAC or 1 A at 24 VDC														
Remote Administration	Full remote control through TCP/IP network														

## MECHANICAL

Connectors	
BNC	Video inputs and outputs
6-pin mini-DIN	PS/2 mouse and keyboard
DB9	COM 1
DB15	VGA port
RJ-45	10/100/1000 Megabit Ethernet port and RS-485/RS-422 ports
USB	6 high-speed USB 2.0 ports (2 front, 4 back); connect mouse and keyboard
Audio Connectors	Miniature male phone plug for line in, microphone in, and audio output
Optional Audio Connectors	
Audio Decoding	GSM610 Wave Format
Audio Bit Rate	8 Kbps
Audio Levels	
Input	Line-level input
Output	Line-level output
Audio Connectors	Female RCA jacks
Audio Inputs	8 for the 8-channel unit; 16 for the 16-channel unit
Audio Outputs	1

## GENERAL

Environmental	
Operating Temperature	50° to 95°F (10° to 35°C)
Relative Humidity	Maximum 80%, noncondensing
Dimensions	
Desktop	19.9" D x 17.0" W x 7.0" H (50.55 x 43.18 x 17.78 cm)
Rack Mount	22.0" D x 19.0" W x 7.0" H (4 RUs) (55.88 x 48.26 x 17.78 cm)

## Expansion Unit Dimensions

Desktop	8.19" D x 17.00" W x 1.73" H (20.80 x 43.18 x 4.39 cm)
Rack Mount	8.19" D x 19.00" W x 1.73" H (20.80 x 48.26 x 4.39 cm)
Antivirus Software Supported <sup>‡</sup>	AVG Anti-Virus Free Edition Version 7.5; Symantec AntiVirus™ Corporate Edition Version 10.1.6; McAfee® VirusScan® Plus with SiteAdvisor™

Minimum and maximum unit and shipping weights are given for each model series.

Unit Weight (Approximate)	Unit	Shipping
DX8108-250	39.8 lb (18.1 kg)	61.0 lb (27.6 kg)
DX8108-3000	44.9 lb (20.4 kg)	67.0 lb (30.4 kg)
DX8116-250	40.3 lb (18.3 kg)	62.0 lb (28.0 kg)
DX8116-3000	45.4 lb (20.6 kg)	67.0 lb (30.4 kg)
DX8124-250	40.8 lb (18.5 kg)	62.0 lb (28.0 kg)
DX8124-3000	45.9 lb (20.8 kg)	68.0 lb (30.8 kg)
DX8132-250	41.3 lb (18.7 kg)	63.0 lb (28.5 kg)
DX8132-3000	46.4 lb (21.1 kg)	68.0 lb (30.8 kg)

## CERTIFICATIONS

- CE and FCC, Class A (all DX8124-M, DX8124-MA, DX8132-M, and DX8132-MA models)
- CE and FCC, Class B (all except DX8124-M, DX8124-MA, DX8132-M, and DX8132-MA models)
- UL/cUL Listed

## DX8100 SERVER MAXIMUM IPS RECORDING

Model	Format	NTSC IPS		PAL IPS	
		Total	Per Camera	Total	Per Camera
DX8108	CIF	240	30	200	25
	2CIF	120	15	100	12
	4CIF	60	7	50	6
DX8116	CIF	480	30	400	25
	2CIF	240	15	200	12
	4CIF	120	7	100	6
DX8124	CIF	360	15	300	12
	2CIF	180	6	150	6
	4CIF	90	3	75	3
DX8132	CIF	480	15	400	12
	2CIF	240	6	200	6
	4CIF	120	3	100	3

Resolution and frame rate values can be assigned evenly among all cameras or can be configured independently for individual cameras. Frame rate values can also be customized according to recording mode (normal, motion, alarm, and ATM/POS).

**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.

\*It is recommended that an uninterruptible power supply (UPS) device with a 700 VA or better rating be used with the DX8100.

<sup>†</sup>Relays are grounded.

<sup>‡</sup>Supported on Windows XP Embedded only.

# TECHNICAL SPECIFICATIONS

## MODEL NUMBERS

Use the following table to create a model number to specify your DX8100. For example, the model number for a 32-channel system with 1000 GB storage and audio input option is DX8132-1000A. Typically, if an audio option is ordered, a 32-channel system comes with a 32-channel audio option.

The model number for a customized system is specified differently. For example, a 32-channel system with 1000 GB storage and an 8-input audio option is stated as follows: DX8132-1000 (32 video channels) and you order the DX8108-AUD option (8 audio inputs) separately. For more information about ordering customized configurations, contact your Pelco sales representative.

DX81XX – XXXXXX		
Channels		
Storage (GB)		
Options		
Channels	Storage in GB	Options
8	250	A = Audio
16	500	M = MUX
24	750	MA = MUX and Audio
32	1000	
	1500	
	2000	
	2250	
	3000	

## Supplied Accessories

Power cords (USA and European), keyboard, mouse, DX8100 recovery disc, remote client application, audio input breakout cables (optional), alarm and relay terminal blocks, and rack mounting kit. (Monitor is not supplied with DX8100 Series DVR.)

## Optional Accessories

DX8100-EXP	DX8100 16-channel expansion unit kit; Racks, 1 RU per unit, rack ears and screws are provided
DX8100-ISCI	DX8100 internal Ultra 160 SCSI card*
DX8108-AUD	DX8100 8-channel audio input card
DX8116-AUD	DX8100 16-channel audio input card
DX8100-512RAM	DX8100 memory upgrade from 512 MB to 1 GB
DX8108-MUX	DX8100 8-channel multiplexed analog output display card
DX8116-MUX	DX8100 16-channel multiplexed analog output display card
DX8100HDDI-2250	2.25 TB external RAID 5 storage expansion unit*
DX8100HDDI-4500	4.5 TB external RAID 5 storage expansion unit*
DX8100HDDI-6750	6.75 TB external RAID 5 storage expansion unit*
DX8100HDDI-9000	9 TB external RAID 5 storage expansion unit*
DX81HDD250KIT	DX8100 SATA 250 GB upgrade
DX81HDD500KIT	DX8100 SATA 500 GB upgrade
DX81HDD750KIT	DX8100 SATA 750 GB upgrade
KBD300A	KBD300A Universal keyboard (requires KBDKIT/KBDKIT-X)
KBDKIT/KBDKIT-X	Remote keyboard wiring kit

Regcom	AVE® RS-485 network system unit†
Hydra	AVE RS-485 network system control unit†
VSI-PRO	AVE Video serial interface for ATM/POS‡
DX8100DSP-W2K	Dual Display Card and version 1.2 software upgrade for Windows 2000
DX8100DSP-XP	Dual Display Card and version 1.2 software upgrade for Windows XP Embedded
DX81SWV12W2K	Software only upgrade for DX8100 Windows 2000
DX81SWV12XPE	Software only upgrade for DX8100 Windows XP Embedded

## CLIENT APPLICATIONS

- Remote client
- Web client
- DX8100 viewer
- Windows Media® Player (not included)

## Recommended PC Requirements

Processor	Intel® Pentium® 4 with 2800 MHz minimum processor speed
Memory	256 MB RAM
Video	AGP or PCI-e VGA card with minimum 64 MB video RAM (nonshared memory), 1024 x 768 or 1280 x 1024 display resolution, and DirectX® 8.1 application programming interface.
Monitor	SVGA or XGA with 1024 x 768 or 1280 x 1024 resolution
Operating System	Windows 2000 (SP4) or Windows XP Professional DirectX 8.1 or later Microsoft® Internet Explorer® 5.5 or later 500 MB free disk space
Mobile PDA Client Application	A Pocket PC with Microsoft PPC 2002 or higher, Intel XScale® CPU with minimum 64 MB of memory

## THIRD-PARTY DOME SUPPORT

The DX8100 Series is compatible with the third-party domes listed below. Consult the factory for information on additional dome compatibility.§

Manufacturer	Model
GE™ (Kalatel)	CyberDome™ Day/Night
LG®	LPT-SD163HM
Panasonic®	WV-CW864
Samsung™	SCC-641
American Dynamics™ (Sensormatic®)	SpeedDome® Ultra VII
Philips® CSI	AutoDome® Day/Night
Baxall™	BPD1-RAS916

\*Not for use with DX8124 or DX8132 models.

†One Regcom unit is required for each ATM/POS device; one Hydra unit is required for each DX8100 serial connection used. One to four serial ports may be used. Support is limited to 16 total ATM/POS devices. Hydra and Regcom and required cabling are available from American Video Equipment (AVE).

‡The VSI-PRO and required cabling is available from AVE.

§This list is subject to change. Please check with Pelco Product Support.



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