DX4700HD/DX4800HD Series Hybrid Video Recorders

16- AND 24-CHANNEL HVR WITH HD DISPLAY AND REAL-TIME RECORDING

Product Features

- 8 or 16 Analog Cameras Plus 8 IP Cameras or Encoders
- Supports 8 Megapixel (MPx) IP Cameras at up to 12 Mbps Total
- Supports Pelco IP and Axis® VAPIX® version 3 IP Cameras up to 3 MPx Resolution
- Up to 30/25 Images Per Second (ips) at 4CIF Resolution for DX4800HD
- Up to 30/25 Images Per Second at CIF Resolution for DX4700HD
- Supports Continuous, Motion, and Alarm Recording
- 1080p Video Display over VGA
- Operates in Both IPv6 and IPv4 Network Environments
- CPU Resource Meter
- Searchable by Date/Time, Event, Bookmark, ATM/POS, Export Review, and Pixel
- IP Camera Pan/Tilt/Zoom (PTZ) Control
- Up to 8 TB Internal Storage Capacity
- eSATA Storage Expansion Port

- Up to 4 Audio Inputs and 2 Audio Outputs
- 1 Bidirectional Audio Output
- DX Series Client Simultaneously Connects to DX Series DVRs/HVRs
- Control Point Client Simultaneously Connects to both DX and DS Series DVRs/HVRs
- Support for Coaxitron® and Pelco's KBD300A Keyboard for PTZ Control of Analog Cameras

The **DX4700HD/DX4800HD Series** of hybrid video recorders provides a cost-effective solution to customers who have continued requirements for 8 or 16 analog cameras and want to expand their systems with megapixel IP recording. The ability to support eight Pelco megapixel IP cameras, or Axis® cameras, gives customers new power and flexibility in their IP migration path. Customers can now benefit from megapixel image detail where they need it most. For example, customers can monitor registers, cash counting operations, high-value merchandise areas, or lobbies and entrances while still receiving maximum value from existing analog cameras and cabling.

DX4700HD/DX4800HD Series HVRs give customers the ability to record at the speed and resolution they need. The new CPU resource meter monitors system resources in real time and is a useful gauge for the addition of IP cameras to the system. Both models record up to 30 ips on all channels. In addition, the **DX4800HD** adds the ability to record full frame rate video at 4CIF resolution for all cameras. With this kind of recording power, previous analog investments gain extended life.

Customers can take advantage of high resolution video by displaying output from the **DX4700HD/DX4800HD Series** on 1080p monitors over VGA. The **DX4700HD/DX4800HD Series** is compatible with all Pelco VGA 1080p monitors.

With up to 8 TB of internal storage, the **DX4700HD/DX4800HD Series** overcomes the high storage demands of megapixel and high speed recording without sacrificing speed for resolution. Customers can readily expand storage with either JBOD or RAID 5 optional eSATA devices. **DX4700HD/DX4800HD Series** HVRs also match security requirements to storage needs with the unique HDD partitioning feature, which can allocate individual disk partitions for normal and alarm recording if desired.

DX4700HD/DX4800HD Series HVRs provide the unique ability to leverage installed systems: the new DX Series remote client provides operational functionality for DX4000 and DX8000 Series DVRs/HVRs, and the optional DS ControlPoint software integrates with DX Series products as well as Digital Sentry® systems.

DX4700HD/DX4800HD Series users will benefit from the robust capabilities including the use of bidirectional audio for enhanced security, access instant playback for quick investigative work, and the ability to capture and overlay ATM/POS text with video recording. For all its features, the **DX4700HD/DX4800HD Series** reduces installation overhead with out of the box recording. An intuitive interface makes custom installation easy and reduces learning time for end customers.

With a wide new range of capabilities, **DX4700HD/DX4800HD Series** HVRs well suit the needs of existing analog markets and are an integral part of an efficient megapixel IP migration strategy.
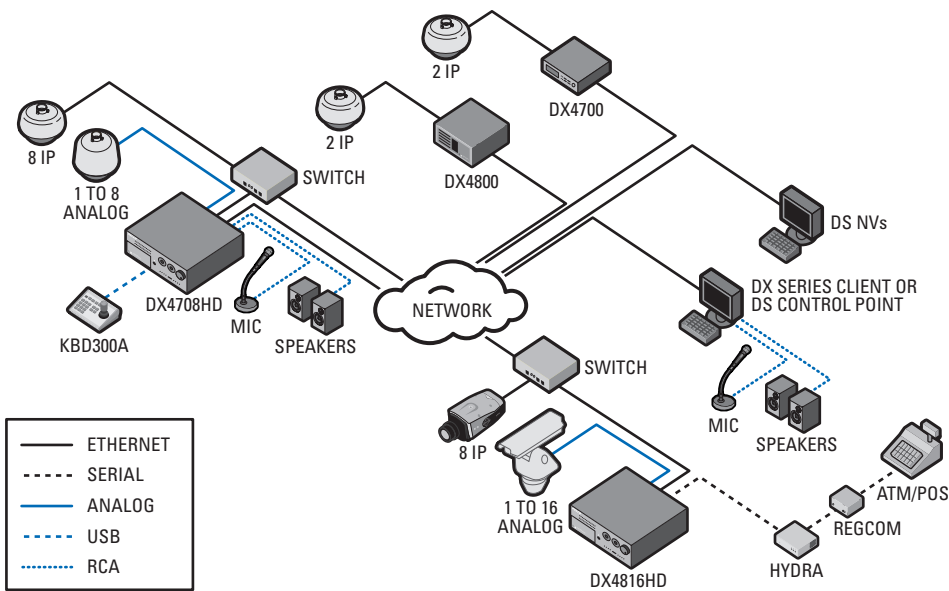
APPLICATIONS

The **DX4700HD/DX4800HD Series** is perfect for customers who want higher resolution images than analog cameras can provide for specific critical areas of their business, including cash-counting, cashiers, entry/exit, or high-value merchandise areas.

Client-to-server connectivity allows operation from a remote location and can connect to as many as 100 DX Series systems simultaneously. Up to 100 systems can be added to the DX Series client site tree. Multiple DX Series clients, running on dispersed computers, can host a variety of servers in their respective site trees. The DX Series client can operate multiple DX Series systems including **DX4700HD/DX4800HD, DX4700/DX4800, DX4100, DX4500/DX4600, DX8000, and DX8100** systems. Each server supports five simultaneous remote connections. The optional DS ControlPoint client can be used to simultaneously operate any of the current DX Series systems as well as any Integral or Digital Sentry DVR/HVR.

DX Series DVRs and HVRs offer the flexibility to meet the size and performance of industry video recording requirements. For example, small sites can use **DX4700** to add one to two IP cameras and record 30/25 ips at CIF resolution. **DX4700HD/DX4800HD Series** HVRs expand security by adding the value of eight megapixel cameras to an analog environment of 8 or 16 cameras and the performance of 4CIF/30 ips for the **DX4800HD Series.** Both the **DX4700HD/DX4800HD Series** and **DX4700/DX4800 Series** also support ATM/POS recording.

The **DX4700HD/DX4800HD Series** provides valuable audio recording capabilities for those applications where policy and legislation allow. Bidirectional audio is an excellent tool for training or for an increased security presence. With up to four audio inputs and two audio outputs, full recording, search, export, and playback capabilities are available at the server. IP streams can be viewed in megapixel resolution at both the server and client.

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	90 to 264 VAC, 50/60 Hz, autosensing
Power Consumption	Maximum 220 W
Signal System	NTSC/PAL, switchable
Operating System	Embedded Linux
Video Compression	H.264 Main profile

Recording Resolutions

NTSC	PAL
704 x 480	704 x 576
704 x 240	704 x 288
352 x 240	352 x 288

Video Outputs	1 main VGA or analog multiscreen for live viewing
Multiscreen	1 configurable, analog spot monitor
Display Resolution	
Server	Up to 1920 x 1080
Client	Up to 1920 x 1080
Remote Connection	LAN/WAN
	TCP/IP (IPv6, IPv4)
Network Connection	Gigabit Ethernet, RJ-45
Simultaneous Remote	
Connections	5
Bandwidth Throttle	Server-based, 32 Kbps to 100 Mbps
Network Streaming	Configurable per camera

SUPPORTED PTZ PROTOCOLS

Pelco C, Pelco D, Pelco P
Bosch_Autodome
Ganz_DSCP, Ganz_P360V1
Kalatel_Cyberdome
LG_Multix, LG_SD168
Panasonic_CS850
Samsung_SCC

MAXIMUM IPS RECORDING

Model	Format	NTSC IPS		PAL IPS	
		Total	Per Camera	Total	Per Camera
DX4708HD	CIF	240	30	200	25
	2CIF	120	15	100	12.5
	4CIF	60	7.5	50	6.25
DX4716HD	CIF	480	30	400	25
	2CIF	240	15	200	12.5
	4CIF	120	7.5	100	6.25
DX4808HD	CIF	240	30	200	25
	2CIF	240	30	200	25
	4CIF	240	30	200	25
DX4816HD	CIF	480	30	400	25
	2CIF	480	30	400	25
	4CIF	480	30	400	25

AUDIO

Line In

DX4708HD/DX4716HD	2, mono, RCA line in
DX4808HD/DX4816HD	4, mono, RCA line in
Output	2, mono, 0 dB, RCA
Sampling Rate	128 Kbps (16 KHz)
Two-Way Audio	Mic-in, line-out
Supported Codecs	G.711, G.721, G.728

MECHANICAL

Connectors

Video Inputs	8 or 16, BNC
Video Outputs	8 or 16, BNC, looping
Alarm Input	1 per BNC input;
	Screw terminal;
	N.C. or N.O., supervised or nonsupervised
Relay Output	2 for 8-channel (N.C. or N.O.);
	4 for 16-channel (N.C. or N.O.)
Relay Contact Ratings*	
Rated (resistive) Load	0.5 A at 120 VAC or 1 A at 24 VDC
Video Output	1 SVGA or 1 analog
TCP/IP Port	RJ-45, 10/100/1000
Data Input	2, RS-422/RS-485 terminals for connecting PTZ cameras
DB9	1, RS-232C connector for interfacing with an ATM/POS device
USB	2 high-speed USB 2.0 ports (1 front, 1 back)
eSATA	1 eSATA port for JBOD or RAID 5 external storage

*Relays are grounded.

GENERAL

Operating Temperature	0° to 50°C (32° to 122°F)
Relative Humidity	Maximum 80%, noncondensing
Mounting	Standard 19-inch rack mount (2 unit)
Dimensions	49.78 x 48.26 x 8.89 cm
	(19.6" D x 19.0" W x 3.5" H)
Unit Weight	
Without HDD	6.0 kg (13.2 lb)
With HDD	9.0 kg (19.8 lb)
Shipping Weight	18.2 kg (40.0 lb) maximum
Camera Views	
Server	1, 4, 6, 8, 9, 16, 25
Client	1 to 36

CERTIFICATIONS/PATENTS

- CE
- FCC, Class A
- UL/cUL
- C-Tick
- CCC
- KCC
- S Mark for Argentina

CLIENT MINIMUM PC REQUIREMENTS

Processor	Intel® Pentium® 4 (or later), 1 GHz
Operating System	Microsoft® Windows® 2000, Windows XP (SP3), Windows Vista®, or Windows 7 and DirectX® 9.1 (or later)
Memory	256 MB
Video	64 MB
Display Resolution	1024 x 768, 32-bit color

PRODUCT MODELS AND FEATURES

Feature	DX4708HD	DX4716HD	DX4808HD	DX4816HD
IP Cameras or Encoders	8	8	8	8
Images Per Second at 4CIF	60	240	240	480
Multi-Event Recording	Yes	Yes	Yes	Yes
Standard Optical Disk Drive	DVD±RW	DVD±RW	DVD±RW	DVD±RW
Maximum Hard Disk Storage (GB)	8000	8000	8000	8000
Audio Inputs/Outputs	2/2	2/2	4/2	4/2
Alarm Inputs/Outputs	8/2	16/2	8/4	16/4

MODEL NUMBERS

Model numbers for the DX4700HD/DX4800HD Series consist of the base model code (features for which are listed above), the number of analog video connections, and the size of the internal hard drive. The combination of features you choose determines your model number. For example, the model number for a DX4800HD unit with 16 analog channels and 2 TB of storage is DX4816HD-2000.

Note: Model numbers must possess the HD designation in order to support the features listed in these specifications.

DXXXXXHD-XXXX

Model
Channels (8 or 16)
Storage (GB)

Base Model	Channels (HD)	Storage in GB
DX4700	8	250
DX4800	16	500
		1000
		2000
		4000
		6000
		8000

SUPPLIED ACCESSORIES

Power Cords	1 USA, 1 European, and 1 UK
USB Mouse	1 for configuration and operation
Resource Disc	1, contains server and client software and documentation
Remote Control	1 for configuration and operation
Accessory Hardware	Alarm and relay terminal blocks, rack mount kit

COMPATIBLE PRODUCTS

Pelco Sarix® IP Cameras (IM, IX, ID, and IE Series)
Pelco NET5400 Series Encoders
Axis IP Cameras (must be compatible with VAPIX version 3)
KBD300A Keyboard
DX Series Client
DS ControlPoint
American Video Equipment Hydra™
JBOD or RAID 5 External eSATA HDD Enclosures*
1080p Resolution Monitors Over VGA (recommended)

*The DX4700HD/DX4800HD Series has been tested with the Promise Technology, Inc. SmartStor® model DS4600 enclosure. Pelco tested this enclosure with a maximum capacity of four Seagate 1 TB Barracuda® SV35.5 (model ST31000525SV) drives.

OPTIONAL ACCESSORIES

KBD300A	KBD300A desktop keyboard with full switching and configuration capabilities and joystick control of PTZ functions; requires a KDB300USBKIT or a KBD300USBKIT-X
KBD300USBKIT	Remote keyboard wiring kit (120 VAC) for KBD300A
KBD300USBKIT-X	Remote keyboard wiring kit (230 VAC) for KBD300A
NET5400 Series	Network video encoders for integrating analog cameras into IP video surveillance systems

Note: It is recommended that you use a 1080p resolution monitor with a VGA input. Pelco offers a variety of monitor options to accommodate this specification. Contact the factory for more information.