

## Multi-Channel Triplex Digital Video Recorders A-XDR9E; A-XDR16E



### Product Summary

The next step in the evolution of embedded digital video records is the ADT XDR series of recorders. The XDR Series recorders are highly stable 9- and 16-channel digital video recorders based on an embedded RTOS (Real-Time OS) operating system with an internal watchdog timer and auto restart upon power loss. The units are designed for real-time display and recording capabilities for nine and sixteen channel video and four audio inputs, with powerful alarm handling with one-to-one action for each event. The units record up to 120 images per second and offer selectable record resolution (horizontal 672 or 336-pixels), high image quality and multiple archiving options using the internal CD-RW drive, an external USB hard disk drive, CD-RW drive or flash drive. The recorders are a cost effective solution for providing quality video security recording and storage.

The recorders provide exceptional picture quality in live and playback modes and offer remote monitoring, remote search and remote configuration using the supplied Remote Administration System software (RAS), on a customer supplied computer.

The Digital Recorders come with an advanced archiving system using a compressed file format with executable "player" software saved with each image file. This allows for the transfer of Chain Finger Encryption (CFE) with each image file. With the addition of an external USB HDD or SCSI drive the unit can archive video fast and efficiently. The Clip-Copy feature allows a video segment to be recorded for archiving and portability while connected remotely or by using the built in CD-RW locally during a search operation.

A User-friendly Graphical User Interface (GUI) and an intuitive menu system allow quick and easy operation using the familiar front panel controls, infrared remote control or the optional USB mouse. For playback the DVRs support two search modes: calendar and event. The calendar search mode enables specific date and time search with a visual recording status table. Event search provides a query to pinpoint specific periods of time and types of events for quick retrieval of recorded images such as external alarm-in, motion detection, text in and video loss events. Pre-event may be programmed to capture video from 5 seconds to 30 minutes before the event occurrence. Each camera can be individually programmed for pre-event with quality and ips settings different from normal settings.

The core technologies used in the ADT recorders result in a powerful operating system and increased efficiency in the hard-drive capacity. The advanced compression engine allows for smaller file data sizes without significant picture quality distortion and makes it possible to store recorded images for longer periods of time.

Built-in IP addressable networking capabilities enable remote system management via a broadband connection or standard telephone line when used with an optional external modem.

### ADT Observation System Connectivity

The optional CONKIT9C or CONKIT16C camera interface provides complete (power, audio-in, video-in, alarm) connectivity for the ADT branded observation cameras.

### Features

- 9- and 16-channel looping BNC inputs
- 4-Channel audio recording and 1-channel audio playback
- 120 ips (Images per Second) triplex operation
- Selectable (336x224) or (672x224) recording resolutions
- Built-in CD-RW, three USB 2.0 I/O ports and Ultra-Wide SCSI interface
- BNC / S-VHS / VGA video monitor outputs for high quality images
- 4- spot monitor outputs with selectable camera inputs and sequencing dwell times for each
- Hand-Held IR Remote control included; mouse operation supported (user supplied)
- Powerful search modes by calendar, time-date, event
- Programmable Video Motion Detection (VMD) per channel
- Intuitive Graphical User Interface (GUI) menu system
- Multiple recording modes (Time-Lapse, Alarm, Pre-event, Panic and Continuous)
- Menu driven backup features allow for archiving images to an external SCSI or USB port
- Clip-Copy archiving using compressed video image files allows for fast and efficient image transfer and portability
- Archived video is easily played back using executable "player" software program - recorded with each clip-copy file
- Remote access via built-in ethernet connection or optional external modem
- PTZ control via RS485, selectable protocols for all major brands
- Multiple display formats (full screen, 2x2, 3x3, 4x4, PIP)
- Programmable record options (schedule, record rate, image quality) for each video input

### Ordering Guide

- A-XDR9E-250** 9-Channel Digital Video Recorder, CD-RW, 250 GB
- A-XDR9E-500** 9-Channel Digital Video Recorder, CD-RW, 500 GB
- A-XDR16E-250** 16-Channel Digital Video Recorder, CD-RW, 250 GB
- A-XDR16E-500** 16-Channel Digital Video Recorder, CD-RW, 500 GB

## Specifications

### Video Input

XDR9E	9-BNC looping inputs, auto terminating
XDR16E	16-BNC looping inputs, auto terminating

### Main Monitor Output

BNC Composite:	1 output
SVHS:	1 Y/C output
VGA:	1 output

### Spot Monitor

BNC Composite:	4 outputs
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### Display Resolution

720 x 480 NTSC
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### Playback/Record

120/120 images/second (NTSC)
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### Record Rate

120 images/second (triplex operation)
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### Alarm Inputs

XDR9E	9 TTL, programmable as NC or NO (push terminal)
XDR16E	16 TTL, programmable as NC or NO

### Alarm Outputs

XDR9E	9 TTL open collector, 5mA@12V, 30mA@5V
XDR16E	16 TTL open collector, 5mA@12V, 30mA@5V

### Alarm Reset

1 TTL w/ground
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### PTZ Control

1 – RS485 Serial connection (two wire half duplex)
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### Network Interface

RS232C Serial Port I/O Control or (Optional External Modem)
RJ-45 Network Interface card
10/100 Base T Ethernet

### Audio Inputs/Outputs

4/1 – line level (RCA connectors)
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### USB Port

3 – type 2 Version 2.0 (2 on front & 1 on back)
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### Ultra Wide SCSI Port

High density female 68 pin connector
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### Dimensions (W x H x D)

16.9" x 3.5" x 17.7"
(430mm x 89mm x 450mm)
(Includes jog/shuttle extension and connectors on back plate)

### Weight

22.5 lbs (10.2kg)
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### Shipping Weight

27.6 lbs (12.5kg)
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### Shipping Dimensions

21.3" x 11.4" x 23.2"
(540mm x 290mm x 590mm)

### Operating Temp

41°F ~ 104°F (5°C ~ 40°C)
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### Operating Humidity

0% - 90% (non condensing)
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### Power Requirements

100 – 240 VAC, 2A, 60/50 Hz
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Specifications subject to change without notice.

## Color Cameras

Part No.	Description
A-C4CPS	Camera, Color, 1/4", plastic, 4&8mm lens, speaker
A-CC3MH	Camera, Color, metal, 3.3-8mm VF, high res
A-CC3FD	Camera, Color, 4-8mm VF, fixed dome, high res
A-CC3VD	Camera, Color, vandal, 4-8mm VF, dc ai, high res
A-S35CNV	Camera, Color, outdoor bullet, 6mm, 380TVL, 6 LEDs, 37mm dia
A-S35CPS	Camera, Color, outdoor bullet, 6mm, 380TVL, 6 LEDs, 37mm dia, 12VDC ps.
A-S35CPS36	Camera, Color, outdoor bullet, 3.6mm, 380TVL, 6 LEDs, 37mm dia, 12VDC ps
A-S230CVWX	Camera, Color, bullet, 3.6mm, 380TVL, 23mm dia
S230CWPS	Camera, Color, bullet, 3.6mm, 380TVL, 23mm dia, 12VDC ps
SDN600	Camera, Color, outdoor bullet, 3.8-9.5mm VF AI, 520TVL, 18 LEDs, 60mm dia
A-CK550HB	Camera, Color, Outdoor Hsg, 5-60mm VF AI lens, mt, H/B, pwr sup, cable
A-DC4C	Camera, Color video door, 1/3", call button, 4mm
A-DS1C	Camera, Color dome, motorized, 360 deg pan
A-CC42S1	Camera, Color, Covert, Wall Clock, 4mm
A-CC42PIR	Camera, Color, Covert, non-working PIR Housing, 4mm
CC42HS37	Camera, Color, Covert, Height-Strip Housing, 3.7mm

## B/W Cameras

Part No.	Description
A-C3BPS	Camera, B/W, 1/3", plastic, 4&8mm lens, speaker
A-CB3MH	Camera, B/W, metal, 3.3-8mm VF, high res
A-CB3FD	Camera, B/W, 4-8mm VF, fixed dome, high res
A-CB3VD	Camera, B/W, vandal, 4-8mm VF, dc ai, high res
A-S190SVWX	Camera, B/W, bullet, 3.6mm fixed, 420TVL, 19mm dia
A-BK550HB	Camera, B/W, Outdoor Hsg, 5-60mm VF AI lens, mt, H/B, pwr sup, cable
A-DS1B	Camera, B/W Dome, 1/3" motorized, 360 deg pan
A-CB38PIR	Camera, B/W, Covert, non-working PIR Housing, 4mm

## Accessories

Part No.	Description
CONKIT4C	Interface Box, 4-channel Video/Audio/Alarm, RJ11, BNC, RCA, 15VDC (includes video connection cables)
CONKIT9C	Interface Box, 9-channel Video/Audio/Alarm, RJ11, BNC, RCA, 15VDC (includes video connection cables)
CONKIT16C	Interface Box, 16-channel Video/Audio/Alarm, RJ11, BNC, RCA, 15VDC (includes video connection cables)
A-A2POS	3' Cash Register to camera interface adapter
A-MB1412E	14" B/W Monitor, CRT, 800L, no audio
A-MC1574FN	15" Color Monitor, flat-CRT, 500L, 2-ch A/V, SHVS
A-MC2174FN	21" Color Monitor, flat-CRT, 500L, 2-ch A/V, SHVS
A-M170BP	17" LCD Color Monitor 1280x1024, plastic, cctv/pc, 250nit
M150C	15" LCD Color Monitor 1024x768, metal, cctv/pc, 250nit
M170C	17" LCD Color Monitor 1280x1024, metal, cctv/pc, 250nit
M190C	19" LCD Color Monitor 1280x1024, metal, cctv/pc, 250nit
MS1X	Mount, desk, for M1x0C series LCD monitors
A-XDLBW	Lockbox, DVR
A-AB50C	Cable, 50', BNC to BNC, spot monitor
BB-6	Cable, 6' BNC to BNC, RG59
BB-3	Cable, 3' BNC to BNC, RG59
ACB-6	Cable, 6' RCA to RCA, audio

## Storage Duration

The following tables illustrate typical recording duration for the 336 x 224 record resolution with a single video input, with continuous video recording and no audio for the recorder with a 500-GB hard disk drive. The actual storage duration will vary depending on the number of cameras recorded, the image quality selected, the recording speed, recording schedule, motion content of the images and the number of stored events.

### Recording Time (based on 500GB)

Image Rec Compression Rate	Record Resolution & Quality Mode (1 CIF) 336 x 224								
	LOW 2 KB		STANDARD 4 KB		HIGH 8 KB		V-HIGH 12 KB		
(sec/img)/(img/sec)	Hours	Days	Hours	Days	Hours	Days	Hours	Days	
0.01	120	579	24.1	289	12.1	145	6.0	96	4.0
0.02	60	1,157	48.2	579	24.1	289	12.1	193	8.0
0.03	30	2,315	96.5	1,157	48.2	579	24.1	386	16.1
0.07	15	4,630	192.9	2,315	96.5	1,157	48.2	772	32.2
0.13	7.5	9,259	385.8	4,630	192.9	2,315	96.5	1,543	64.3
0.20	5	13,889	578.7	6,944	289.4	3,472	144.7	2,315	96.5
1	1	69,444	2,893.5	34,722	1,446.8	17,361	723.4	11,574	482.3
30	0.03	2,314,815	96,450.6	1,157,407	48,225.3	578,704	24,112.7	385,802	16,075.1

\* Storage is for one input, divide by number of cameras used

