

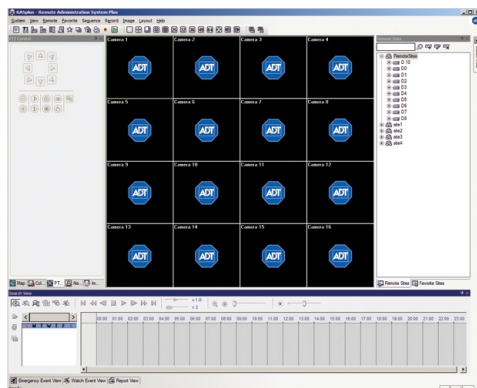
H.264 Multi-Channel A-ADT400HD, A-ADT800HD, A-ADT1600HD Digital Video Recorders w/ DVD-RW



Product Summary

ADT introduces a new series of affordable multiple channel Digital Video Recorders with high quality H.264 compression and extended storage. The ADT Series recorders are highly stable 4-, 8- and 16-channel digital video recorders based on an embedded Linux operating system with improved H.264 compression. The units are designed for real-time 120/240/480-ips Full Duplex display and recording capabilities for four, eight and sixteen channel video and four audio inputs. The units record real time at CIF resolution and offer 2CIF and 4CIF options for the highest quality images, and simple file archive using the internal DVD-RW, USB port for flash drive (thumb-drives), external USB hard disk drive or CD-RW drive. The recorders are the most 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 Plus software (RAS+), on a customer supplied computer. RAS+ is offered as an advanced, yet simple Windows format with drop down menus allowing full customization of the viewing screen. All features and functions of the DVR are available on a single screen using a single connection to the DVR. The RAS+ features the capability of a 64 segment display for individual cameras from up to 64 DVR connections. RAS+ offers live view, remote search and system status from multiple recorders.



One of the most powerful features of RAS+ is the ability to customize the screen layout and only have the most used features on screen while less used features are only a tab away. Each function is identified with a tab and can be placed on the side or bottom of the screen so when the cursor is placed on the tab the function window appears. The user will be able to customize and save up to four different screen configurations.

This is useful if more than one person uses the same computer or if a user has different operational characteristics for different remote locations. For example, the pan-tilt-zoom control can be on screen only if there are pan-tilt-zoom cameras at the location.

The ADT Series supports broadband static IP, ADSL, DHCP, dynamic IP using DVRNS – an enhanced DDNS system for IP addressable networking capabilities, or standard telephone line when used with an optional external modem. The system allows up to 10 simultaneous connections for live view and two each for administration and search. Remote video connections may be bandwidth controlled max 120-ips and remote file export is accomplished using Clip-Player, AVI, JPEG or BMP files.

The Digital Recorders offer 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. The Clip-Copy feature allows a video segment to be recorded for archiving and portability while connected remotely or 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 or a USB mouse. For playback the DVRs support two aggregate 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, video obscuration, video blind, text-in and video loss events. Pre-event may be programmed to capture video up to 30 minutes before the event occurrence. Each camera can be individually programmed for pre-event with quality and ips settings.

The core technologies used in the ADT recorders result in a powerful operating system and increased efficiency in hard-drive capacity. The advanced H.264 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.

Features

- 4-, 8- and 16-channel looping BNC inputs
- 4-channel audio recording / 1-channel audio playback
- Real-Time 120/240/480-ips (images per second) triplex operation
- Selectable CIF, 2CIF, 4CIF record resolution
- Internal DVD-RW
- Two USB 2.0 I/O ports
- Concurrent BNC / VGA video outputs
- 1-spot monitor output: full-screen single camera or programmed sequencing
- USB mouse operation supported
- Full screen, 2x2, 1+5, 1+7, 3x3, 4x4, PIP
- Powerful search modes by calendar, time-date, event, motion, museum, text-in
- 2X Digital Zoom, 1-Touch / 2-Touch Clip/Copy archiving (compressed video image files)
- Archived video played back using executable “player” software program
- Temperature Check, SMART Diagnosis, Auto Recovery, Auto Deletion
- Network Time Sync
- Key-Lock Security / 256 individual users
- Programmable Video Motion Detection (VMD), Video Obscuration Detection (VOD) and Video Blind Detection (VBD)
- Intuitive Graphical User Interface (GUI) menu system
- Multiple recording modes -Time-Lapse, Event, Text, Pre-event, Panic and Continuous
- Programmable record options -Schedule, Record Rate, Image Quality for each input
- Advanced Scheduling (selection of parameters per camera)
- Up to 30 minute pre-event / 15 minute post event recording
- Remote Access System (RAS+) software supports Static-IP, ADSL, DHCP, Dynamic-IP DVRNS (Enhanced DDNS)
- RAS+ features Monitoring, Playback, Recording, Setup, PTZ, Upgrade, Status with full Triplex operation, (User defined 64-channel view), Map integration, Multi-Site System Health Monitoring with user defined customizable panel design
- 60+ PTZ camera control protocols
- 5 language menu including English, French, and Spanish
- USB Printer Support

Ordering Guide

SCN#	Item
A-ADT400HD-500	4-Ch DVR, H.264, 120-ips, IR, mouse, DVD, 500GB
A-ADT400HD-1TB	4-Ch DVR, H.264, 120-ips, IR, mouse, DVD, 1TB
A-ADT800HD-1TB	8-Ch DVR, H.264, 240-ips, IR, mouse, DVD, 1TB
A-ADT800HD-2TB	8-Ch DVR, H.264, 240-ips, IR, mouse, DVD, 2TB
A-ADT800HD-3TB	8-Ch DVR, H.264, 240-ips, IR, mouse, DVD, 3TB
A-ADT1600HD-1TB	16-Ch DVR, H.264, 480-ips, IR, mouse, DVD, 1TB
A-ADT1600HD-2TB	16-Ch DVR, H.264, 480-ips, IR, mouse, DVD, 2TB
A-ADT1600HD-3TB	16-Ch DVR, H.264, 480-ips, IR, mouse, DVD, 3TB



ADT Always There®

Specifications

Video Input

4-, 8-, 16-BNC looping inputs, auto terminating

Main Monitor Output

BNC Composite: 1 output

VGA

15 pin D connector RGB; 1 output

Spot Monitor

BNC Composite: 1 output

Display Mode (main)

1, 4, 6, 8, 9, 16, Sequence, PIP, and Digital 2X Zoom

Display Mode (spot)

Full-screen, Sequence

Display Resolution

720 x 480 NTSC

Record Resolution

CIF: 352 x 240, 2CIF: 704 x 240, 4CIF: 704 x 480

Playback/Record Rate

480/480 images/second, 16-Ch (CIF)
240/240 images/second, 16-Ch (2CIF)
120/120 images/second, 16-Ch (4CIF)
240/240 images/second, 8-Ch (CIF)
120/120 images/second, 8-Ch (2CIF)
60/60 images/second, 8-Ch (4CIF)
120/120 images/second, 4Ch (CIF)
60/60 images/second, 4Ch (2CIF)
30/30 images/second, 4Ch (4CIF)

Guaranteed Full-Duplex –
no record rate reduction

Compression

H.264

Operating System (OS)

Embedded Linux
Max 4 HDD without DVD-RW,
Max 3 HDD with DVD-RW

Data Export Medium

Internal DVD-RW, USB (HDD, CD-RW,
Flash-Drive), IDE (CD-RW, DVD-RW)

Alarm Inputs

4/8/16 TTL, NC or NO, push terminal

Alarm Outputs

1/2/2 Relay Out, terminal block

Alarm Reset

1 TTL w/ground, terminal block

Network Interface

RJ-45 Network Interface card
10/100 Base T Ethernet

Network Protocols

RS232C Serial Port I/O Control
Static IP, ADSL, DHCP, DVRNS
(Enhanced DDNS)

Remote Connections

Admin: 2 / Watch 10 / Search: 2

Remote Software

Webguard: Monitoring, Playback, Recording, Setup,
PTZ, Upgrade, DVR Status

RASPlus: Triplex operation, (User defined
64-channel view), Map integration, Multi-Site
System Health Monitoring

Remote Data Export

Clip-Player, AVI, JPEG, BMP

Remote Transmission Rate

Maximum 120-ips, with Bandwidth Control

PTZ Control

1 – RS485 Serial connection (two wire half duplex)

Audio Inputs/Outputs

4/1 – line level (RCA connectors)

USB Port

2 – type 2 Version 2.0 (2 on front)

Dimensions (W x H x D)

16.9" x 3.5" x 15.9" (430mm x 88mm x 405mm),
2U, Rack mount

Weight

16.1 lbs (7.3kg)

Operating Temp

41°F ~ 104°F (5°C ~ 40°C)

Operating Humidity

0% - 90% (non condensing)

Power Requirements

100 – 240 VAC, 4-2A, 60/50 Hz, 100W

Regulatory Approvals

FCC, UL **, CB, CE

* CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions. This equipment is indoor use and all the communication wiring are limited to inside of the building.

Specifications subject to change without notice.

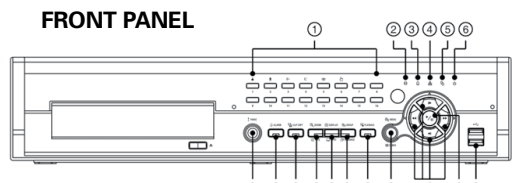


Figure 3 — 16-Channel DVR front panel.

- ① Camera Buttons
- ② HDD LED
- ③ Alarm Out LED
- ④ Network LED
- ⑤ Clip Copy LED
- ⑥ Power LED
- ⑦ Panic Button
- ⑧ Alarm Button
- ⑨ Clip Copy Button
- ⑩ Zoom/PTZ Button
- ⑪ Display/SPOT Button
- ⑫ Group/Sequence Button
- ⑬ Playback Mode Button
- ⑭ Menu/Cameo Button
- ⑮ Arrow Buttons
- ⑯ Play/Pause Button
- ⑰ USB Connector

Recommended System Components

Part No.	Description
ML757	17" LCD VGA-only, 1280x1024, black plastic case
ML950F	19" LCD, VGA, BNC, DVI, Audio, 1280x1024, black plastic case
ML970W	19" Wide LCD VGA-only, 1440x900, black plastic case
ML2200W	22" Wide LCD Monitor 1680x1050, black plastic case
M170CP2	17" LCD Monitor 1280x1024, narrow bezel, plastic, cctv/pc
A-M170CP2D	17" LCD Monitor 1280x1024, narrow bezel, plastic, cctv/pc
M190CP2	19" LCD Monitor 1280x1024, narrow bezel, plastic, cctv/pc
A-M190CP2D	19" LCD Monitor 1280x1024, narrow bezel, plastic, cctv/pc
A-XDLBW2	Lockbox, DVR
BB-3	Cable, 3' BNC to BNC, RG59
BB-6	Cable, 6' BNC to BNC, RG59

Storage Duration

The A-ADT400HD records up to 120 images per second at standard resolution, the A-ADT800HD records up to 240 images per second at standard resolution and the A-ADT1600HD records up to 480 images per second at standard resolution (30-ips per channel) and the tables illustrate a typical recording duration for CIF, 2CIF and 4CIF record resolutions with a single video input, with continuous video recording 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.

500-GB HDD

CIF (ips)	Basic Days	Standard Days	High Days	Very High Days
30	96.5	48.2	32.2	24.1
20	144.7	72.3	48.2	36.2
15	192.9	96.5	64.3	48.2
5	578.7	289.4	192.9	144.7
1	2893.5	1446.8	964.5	723.4

500-GB HDD

2CIF (ips)	Basic Days	Standard Days	High Days	Very High Days
20	72.3	36.2	24.1	18.1
15	96.5	48.2	32.2	24.1
10	144.7	72.3	48.2	36.2
5	289.4	144.7	96.5	72.3
1	1446.8	723.4	482.3	361.7

500-GB HDD

4CIF (ips)	Basic Days	Standard Days	High Days	Very High Days
20	36.2	18.1	12.1	9
10	72.36	36.2	24.1	18.1
5	144.7	72.3	48.2	36.2
1	723.4	361.7	241.1	180.8

Storage is for one input; divide by number of cameras used.

REAR PANEL

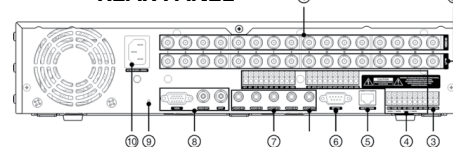


Figure 2 — 16-Channel DVR rear panel.

- ① Video Input
- ② Video Loop Through
- ③ RS485 Port
- ④ Alarm Input/Output
- ⑤ Network Port
- ⑥ RS232C Port
- ⑦ Audio In/Out
- ⑧ Video Out
- ⑨ Factory Reset Switch
- ⑩ Power Cord Connector

