

A-SDR415E Series 4-Channel Digital Video Recorder



General Operation

The A-SDR415E is a highly stable four-channel Quad digital video recorder based on an embedded RTOS (Real-Time OS) operating system with an internal watchdog timer and auto restart upon power loss. The unit is designed for real-time display and recording capabilities for four video and audio inputs, and powerful alarm handling with one-to-one action for each event. The A-SDR415E records up to 120 images per second with selectable record resolution (CIF, 2-CIF or 4-CIF), high image quality and multiple archiving options using the internal DVD-RW drive, or an external USB hard disk drive or CD-RW drive.

Panic Mode

The A-SDR415E features an emergency "panic" record mode activating all camera inputs to record regardless of programmed time-lapse or event recording schedules. For normal recordings, the unit provides multiple options for time-lapse, event recording (motion, alarm-in, text-in, video-loss) and even up to 30 minutes of pre-event recording.

S.M.A.R.T. Monitoring

The A-SDR415E utilizes advanced Self-Monitoring, Analysis and Reporting Technology (SMART) to monitor the internal IDE HDDs. The technology senses potential fault conditions within the DVR and will report the information on-screen.

Graphical User Interface (GUI)

The A-SDR415E features a graphical user interface, which is easily navigated using the front panel controls. All system programming and control is accomplished using on-screen pull-down menus and easy to follow dialog boxes.

Remote System Operation

The A-SDR415E supports remote access via TCP/IP supported networks. The client-based remote software (RASplus) included with the unit allows programming, control, live viewing and image search from the remote location. Multiple A-SDR415E units may be addressed and remotely accessed using only one copy of the RASplus program.

The Remote Administration Software (RASplus) provides reporting functions including a live system status; event and system log searches, and allows programming of the remote unit. Using RASplus provides remote monitoring of video images from single or multiple sites. The images may be viewed full-screen, 2x2, 3x3 or a variety of multi-segment displays up to 64 segments on screen simultaneously. The Search function provides a duplex remote search and playback of the recorded images and also provides image zoom, interpolation, file save and file print.

The local A-SDR415E can send exception event and alarm notifications to a remote monitoring location running the RASplus software to alert the remote station when an alarm or triggered event has occurred (TCP/IP networks only).

System Archive

The A-SDR415E recorder features 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 Fingerprint Encryption (CFE) with each image file. The A-SDR415E recorder offers both built-in DVD-RW and two front panel USB ports for fast and efficient archiving.

Connector Interface

The A-SDR415E DVR offers standard BNC, and VGA output connectors permitting a wide range of CRT or LCD video monitor options. The unit features loop through BNC video connections and four separate audio inputs with one audio output. The internal network card (RJ-45) permits connection to IP supported networks. The RS-485 connection terminal allows the DVR to control Pan, Tilt and Zoom cameras and supports more than forty-five different protocols.

Features

- 4-Channel Digital Recorder with 4-Channel Audio
- 120-ips Duplex Operation
- Selectable 672x224, 336x224 or 672x448 Record Resolution
- Built-in web server allows remote connection via IE browser
- Remote monitoring available using client software for multi-site connections, TCP/IP protocol
- Quad, Full-Screen and Sequential Camera Views
- One-Button PANIC Record
- BNC / VGA Monitor Outputs
- Built-in DVD-RW USB v.2.0 with mouse support
- User Friendly Graphical User Interface (GUI)
- Time-Lapse, Event and Pre-Event Recording Selectable by Camera
- Variable Recording Speed / Image Quality by Camera
- Programmable "Event-Action"
- Built-in Motion Detection, text-in, Alarm-in and Video-loss Alarm Inputs
- Powerful Search Function for Calendar, Date/Time and Event Query
- 3 Security Levels
- Chained Fingerprint Encryption
- Overwrite or Stop HDD Recording Options

Ordering Guide

SCN#	Item
A-SDR415E-250	4-channel Digital Recorder, DVD-RW, 250GB
A-SDR415E-500	4-channel Digital Recorder, DVD-RW 500GB



Specifications

Video

Signal Format	NTSC or PAL (auto detect)
Video Input	Composite: 4 looping inputs, 1 Vp-p, auto-terminating, 75 Ohms
Monitor Outputs	Composite: One (BNC), 1 Vp-p, 75 Ohms Analog RGB: One (VGA)
Display Resolution	720x480
Record Resolution	Standard: 336x224 High: 672x224 Very High: 672x448
Playback/Record Speed (images per second)	Standard: 120ips (NTSC) High: 60ips (NTSC) Very High: 30ips (NTSC)

Inputs/Outputs

Alarm Input	4 TTL, NC/NO programmable, 4.3V threshold
Alarm Output	1 relay out, terminal block, NC&NO, 0.5A @ 125VAC, 1A @ 30VDC
Alarm Reset Input	1 TTL, terminal block
Internal Buzzer	80db at 10cm
Network Connectivity	10/100 Base Ethernet
Audio Input	4, Line level
Audio Output	1, Line level

Connectors

Video Input	Composite: 4 BNC
Video Loop	Composite: 4 BNC
Monitor Output	Composite: 1 BNC Analog RGB: (VGA, DB15)
Audio In	4 RCA connector
Audio Out	1 RCA connector
Alarms	Terminal block
Alarm Reset In	Terminal block
Ethernet Port	RJ-45
RS-485 Serial Port	2-pins of a multi-pin terminal block
USB Port	2 at front (2.0)

Storage

Primary Storage	(Maximum 2HDD)
Backup Storage	Built-in DVD-RW drive

General

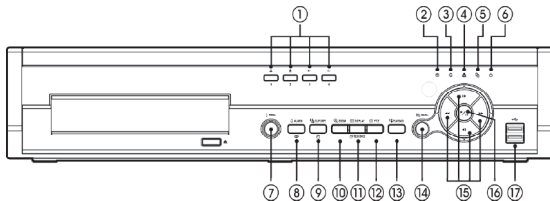
Dimensions (W x H x D)	16.9" x 3.5" x 14" (430mm x 88mm x 355mm)
Unit Weight	17.64 lbs. (8.0kg)
Shipping Weight	22.44 lbs. (10.2kg)
Shipping Dimensions (W x H x D)	21.3" x 10.2" x 19.7" (540mm x 260mm x 500mm)
Operating Temperature	41°F to 104°F (5°C to 40°C)
Operating Humidity	0% to 90%
Power	100–240 VAC, 2A, 50/60Hz

Approval

UL, CB, CE, FCC

Specifications are subject to change without notice.

A-SDR415E Front Panel



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|---------------------|-------------------|---------------------------|-----------------|
| 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 Button | ⑪ DISPLAY/SEQUENCE Button | |
| ⑫ PTZ Button | ⑬ PLAYBACK Button | ⑭ MENU Button | ⑮ Arrow Buttons |
| ⑯ Play/Pause Button | ⑰ USB Connectors | | |

Cameras

Part No.	Description
A-CC540TDN	Camera, Color, 540 TVL, OSD, 3.3-8mm VF, BNC / 12VDC / 24VAC / RJ11
A-CF540	Camera, Color, 540 TVL, 4-9mm VF, fixed dome, BNC / 12VDC / 24VAC / RJ11
A-CV540	Camera, Color, 540 TVL, vandal, 4-9mm VF, DC AI, BNC / 12VDC / 24VAC / RJ11
S35CH	Camera, Color, outdoor bullet, 6mm, 520TVL, 6 LEDs, 37mm diam
S35CHPS	Camera, Color, outdoor bullet, 6mm, 520TVL, 6LEDs, 37mm dia., 12VDC PS
S35CHPS36	Camera, Color, outdoor bullet, 3.6mm, 520TVL, 6LEDs, 37mm dia. 12VDC PS
A-S230CWV	Camera, Color, bullet, 3.6mm, 380TVL, 23mm dia
S230CWVPS	Camera, Color, bullet, 3.6mm, 380TVL, 23mm dia, 12VDC ps
SDN655	Camera, Color, outdoor bullet, 3.8-9.5mm VF AI, 520TVL, 18 LEDs, 60mm dia
SDN655PS	Camera, Color, outdoor bullet, 3.8-9.5mm VF AI, 520TVL, 18 LEDs, 60mm dia, 12VDC ps
A-CK540HB	Camera, Color, Outdoor Hsg, 5-60mm VF AI lens, mt, H/B, pwr sup, cable
CC48HS	Camera, Color, Covert, Height-Strip Housing, 525TVL D/N, 3.7mm, RJ-11
FS100H	Camera, Color, Covert, Height-Strip Housing, 525TVL D/N, 3.7mm, 12 VDC ps inc
FS150H	Camera, Color, Covert, Mini-Strip Housing, 525TVL D/N, 3.7mm, 12 VDC ps inc

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-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
M170CP2	17" LCD Color Monitor 1280x1024, narrow bezel, plastic, cctv/pc, 300nit, desk stand inc
M190CP2	19" LCD Color Monitor 1280x1024, narrow bezel, plastic, cctv/pc, 300nit, desk stand inc
A-XDLBW2	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

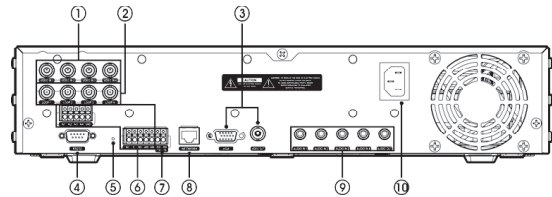
The following tables illustrate typical recording duration for the 336 x 224 record resolution with a single video input, with continuous video recording and no audio for the recorder with a 250-GB hard disk drive. The actual storage duration will vary depending on the number of cameras recorded, the image quality selected, the recording speed, recording schedule, motion content of the images and the number of stored events.

Recording Time (based on 250GB)

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	289	12.1	145	6	72	3	48	2
0.02 60	579	24.1	289	12.1	145	6	96	4
0.03 30	1240	51.7	620	25.8	310	12.9	207	8.6
0.07 15	2170	90.4	1085	45.2	543	22.6	362	15.1
0.13 7.5	4340	180.8	2170	90.4	1085	45.2	723	30.1
0.20 5	8681	361.7	4340	180.8	2170	90.4	1447	60.3
1 1	34724	1446.8	17360	723.2	8680	361.6	5788	241.2

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

A-SDR415E Rear Panel



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|------------------------|----------------------|--------------|--------------|
| ① Video Input | ② Video Loop Through | ③ Video Out | ④ RS232 Port |
| ⑤ Factory Reset Switch | ⑥ Alarm Input/Output | ⑦ RS485 Port | |
| ⑧ Network Port | ⑨ Audio In/Out | ⑩ Power Cord | |

