

SA9416 RACK Hybrid Windows DVR

3U Rack
Mountable



Model Number(s):

- SA9416 RACK - 16 channel solution

Key Points:

- 16-CH video/audio, D1 real-time DVR
- Supports all major IP camera brands
- Hardware Compression MPEG4
- IP and Analog PTZ camera support
- Supports up to 5 MegaPixel
- Advanced alarm management
- Comprehensive remote access integration



AVerMedia's 16-ch hybrid SA9416 RACK revolutionizes video surveillance with exceptionally-clear video powered by real-time 480 fps at D1 resolution and cutting-edge MegaPixel IP technology. This colossal DVR also integrates intuitive Video Intelligence, powerful Visual and Intelligent search features and value-added tools such as FaceFinder software and Video Encryption.

Leading Hardware Compression methods, remote accessibility on PDA/cells, Central Management System that controls over 1,000 DVRs and more – welcome to the ultimate DVR!

ADMINISTRATION

- Video Format: NTSC
- 16 channels with 480 frame rates across the unit
- 352 x 240 (CIF), 720 x 240 (Half-D1), 720 x 480 (D1) resolutions available
- Video compression: Hardware MPEG4
- Supports all major IP camera brands and compatible with up to 5 MegaPixel IP camera(s) (check support list for integrated camera model numbers)
- IP/Analog camera Pan-Tilt-Zoom enabled; script available for adding new protocols
- Supports up to 1920 x 1200 wide screen resolutions
- Uncomplicated system and/or IP camera support updates through USB drives
- Virtual keyboard built-in and support's UPS

CONFIGURATION

- Pre-schedule many system functionalities including recording, backup, reboot, alarm and relay controls as a one-time or recurring weekly task
- Save time on multiple system setups by simply exporting and importing system configuration settings

CAPABILITIES

MONITORING

For environments that depend on live video, the SA9416 offers many features for fast and responsive event management:

- Video - 16 analog (BNC Connectors) and /or IP cameras
- Audio - 16 channel inputs and 1 channel output
- Spot Monitor - Analog AND IP video transmission; user can select any combination of channels to output with auto scan and 1, 4, 8, 9, 13 and 16 screen split modes
- 4 sensors & relays and up to 128 more with add'l E-I/O box
- E-maps (8) showcasing camera, sensor and relay positions
- Simultaneously view live video during playback
- Integrated Auto Gain Control (AGC) balances image noise
- View and record in total darkness with built-in "Night View" functionality EVEN for day-only cameras

Live Display

- Award winning Graphical User Interface (GUI) with:
 - Advanced GUI mode for easy access to system tools
 - Compact GUI mode for maximum image display
- Channel Auto scan with 1, 4, 8, 9, 13 & 16 screen splits
- Digital zoom incorporated for greater detail in live video
- Noise reduction filter enabled for crisper images

Alarm/Notifications

The SA9416 is ready for real-time incident response by:

- Starting video recording on multiple cameras
- Sending footage to spot monitor
- Enabling camera PTZ tracking and enlarging triggered video
- Following sensor with relay protocols (e.g. locking gates etc.)
- Launching the triggered channel's corresponding Emap
- Sending emails, snapshots and files to FTP, SMS/MMS
- Making a phone call or playing customizable warning sounds
- Sending video to Central Management System
- Displaying standard operational protocols to ensure proper adherence to procedures by security personnel

INTELLIGENCE

To reduce security staffing and/or to manage high-volume video, the SA9416 also provides intelligence that is triggered by:

- Motion Detection
- Objects left or removed from monitored zones
- Sensor inputs
- Point-of-Sale events
- Video loss or HDD failure; initiates "Watchdog" function if needed to bring system back from faulty to normal operation

The SA9416 also includes FaceFinder software that catalogs human faces in live video for triggering instant playback of video from the catalog incase of abnormalities

RECORDING

Once the system is triggered and starts recording, it can continue to do so without time limitations. Additional features:

- Continuous, Motion, Event, or Audio recording
- Smart - Activity based escalation of recording fps (low - high)
- Video mask - prevent high activity regions from triggering motion based recording
- System will auto recycle storage space when disk is full
- Two types of de-interlace method (for analog cameras): optimized for static scenes or dynamic scenes

INTEGRATION

- POS is integrated on every channel along with POS database, advanced data search and keywords that can trigger alarms

FORENSICS

For rapid retrieval/export of pertinent data the SA9416 provides:

Search

- Defined parameter search by date, time, camera, area, event, and event log file
- AVerMedia patented Visual Search that visually breaks down video by day, hour, minute, 10 seconds and second
- Time search to scroll through by moments
- Easy retrieval and playback of footage by "Bookmarking" significant segments
- Advanced event log search by event, operation, POS, system and network activities

Playback

- Simultaneously view up-to-10 minutes of instant playback by clicking the playback icon on live video
- Built-in sensitive playback controls (including frame-by-frame)
- Digital zoom incorporated for greater detail in playback video
- System can save up-to-10 seconds of pre-alarm footage from temporary to permanent storage

Backup

- Easily export/backup to DVR-RW/ CD-RW, flash memory, external HDD, NAS, SAN and RAID
- iBackup software ensures easy backup and playback
- System starts automatic back up of footage when external storage devices are inserted
- Direct burn to CD/DVD-RW during backup
- Export single images to BMP files or segments to AVI files
- Saved images are "Watermarked" to validate authenticity

CAPABILITIES

REMOTE

Multicasting

- iDispatch - For high-traffic video broadcasting, the SA9416 will multicast video streams to drastically lower network, server and camera loads for effective remote viewing

Bandwidth

- For bandwidth considerations, connection speed of 64K, 512K or LAN can be preset by Account Administrator; if not set, user can select any speed of their choosing

Setup and configuration

- iSetup is bundled to make system changes remotely
- Remote backup capability is included with the SA9416

Viewing

From laptops, cells phones, PDAs and more, you can track video whenever and wherever

- IViewer (for Apple iPhone), WebViewer, PDAViewer, JavaViewer, SmartViewers & Remote Console
- Control PTZ, setup, Emaps, recording, playback, sensors and relays - ALL REMOTELY
- 2-way audio communication capacity

Multiple Systems

- With CM3000 central management software, you have total command of up to 1000 remote systems from one location

USER ACCESS

- Up to 32 user accounts with individually assigned passwords and user privileges

SPECIFICATIONS

SA9416E RACK Detailed Specifications

Front Panel Connections

Front panel controls	Power switch, Removeable HDD
DVD writer	Included, supported medias: DVD±R, DVD±RW
USB 2.0	2

Rear Panel Connections

Video Inputs (analog)	16 - BNC Connectors
Video (IP cameras)	16 video H.264/MPEG4/JPEG data streams
Video Output	1 - VGA out, 1 - DVI out, 1 - TV out
Audio Input/Output	16/1
Microphone Input	1
Alarm Inputs/Relay Outputs	4/4
E-SATA	1
USB 2.0	4
Communication	1x - RS232, 1x - RS485
AC Power	350 Watt

Unit

Operating system		Embedded Windows XP 32bit	
Compression		Hardware: MPEG4	
Video Format	Analog	NTSC: 352 x 240 (CIF), 720 x 480 (D1)	
	IP	IP/Megapixel Camera Specific	
Recording Rates	Analog	CIF	480fps
		D1	480fps
	IP	Per camera specifications	
Storage	Capacity	Supports up to 4 SATA HDDs (3 Internal, 1 Removeable)	
	eSATA	1 eSATA connector, Support eSATA RAID	
Communication Ports	RS 485	1, Terminal block, Tx+, Tx-, Rx+, Rx-	
	RS 232	N/A	
Networking		1, 10/100/1000 Base-T Ethernet, RJ-45	
Supported IP cameras (support IP PTZ, IP IO, & IP audio if IP cameras built-in)		AXIS, Panasonic, SONY, Arecont, Mobotix, BOSCH, IQinvision, JVC, TOSHIBA, VIVOTEK, ACTi, D-Link, PiXORD, PELCO, Apron, Lilin and more	

Mechanical

Dimensions (H x W x D)	5.23 x 18.97 x 20.82in
Weight	
3U Rack Mountable	Optional rack ears

Regulatory

Emissions	FCC: Part 15, Class A
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Software

Interface	Graphical user Interface
Account Administration	Up to 256 accounts with configurable user privileges
Camera Administration	Add and configure all supported IP/Megapixel cameras through the GUI.
PTZ Control	Zoom-in/Zoom-out, Focus-in/Focus-out, Direction, Speed, Preset point, Autopan.
Playback Administration	Playback while recording or setup
	Play, rewind, fast-forward, frame-by-frame control
	Digitally zoom to specific regions on recorded video
	Export single frame to .jpg, export video clip to .DVR
Motion Detection	Configurable to sense mass/motion; can partition off areas in monitoring regions from motion triggers
Event Recording	Schedule: Continuous, Smart, Motion, Alarm, Manual
Video Event Search	Visual Search, date/time, camera, event & log files
Advanced Event Log	Full event, operation, system & network activities log
Alarm Notifications	Launch or send E-map, relay, video capture, CM3000 or E-mail notification
E-map Display	Positions of cameras, sensors, relays and event status
iEnhance	Enhance video quality such as Brightness/Contrast/Hue/ Saturation/ Sharpness/ Noise Reduction/De-interlace/ Gray Scale of recorded video
iStable	One-click fix for shaky video caused by camera movement (such as wind or vandalism)

Remote Management

Central Management	CM3000 software - supports up to 1000 DVRs
Remote DVR connectivity	WebViewer (MS Internet Explorer only), Remote Console, JavaViewer, PDAViewer
Dispatch Server	Balance NVR communication for added client access and greater data transfer speeds
DDNS	Allow remote clients to search dynamic servers without enquiring for server's IP address

Environmental

Temperature	Operating	32 ° to 104 °F
	Storage	-22°F to 140 °F
Relative humidity	Operating	50%-80%
	Stored	90%

Warranty

2 Year Limited Parts and Labor

RECOMMENDATIONS

SA9416 RACK Hardware Recommendation List

PTZ Camera (visit our website support/download page for a complete list)

Brand	Product Number
AmericanDynamics	all products
Canon	VC-C4R
CD55	all products
DiGiDome	DRX -502A (DOH-240)
DMP23-H2	DMP23-H2
DynaColor	All products
Eastel	all products
ELMO	PTC -200C
Fastrax II	HID-2404
JVC	TK-C676 / TK-C675
Lilin	PIH 717X / 7000 / 7600 / PIH 7622/ 7622DH / 7635DH
MD101	all products
MicroJack-P	all products
NiceCam	all products
Panasonic	WV-CS850 / WV-CW860 / WV-CS950 / CS850B / CW860A / WV-CZ352
Pelco	Pelco-D/ Pelco-P
Philips	TC8560, TC700
SamSung	SCC-641
Sony	15-CZ45-1 /EVI-D70P
Yoko	all products

USB to Serial Hubs (Could be compatible w/ POS Series, PTZ Camera, UPS Series)

Brand	Model	Capacity
MOXA	Uport 1410	

Raid System

Brand	Product Number
Stardom	SR3610-2S-SB2
AVerDigi	RA4000e

Note:

Based on Intel's suggestion, for all of Microsoft Windows XP Operating Systems, Hyper-Threading must be disabled in the system BIOS Setup program for our DVR products. For the most stable security DVR system, we strongly recommend NOT using VIA/SiS/ALi chipsets and SiS VGA chips with our products due to their severe limitation of the chipset design.

Please make sure you are using the standalone VGA card with 128 MB memory above instead of built-in onboard VGA card in order to ensure the working stability and performance of the NV/NXU series software.

We highly recommend not applying the Samsung Hard disk drive to the SA/XR/EXR DVR products for recording or backing up video files usage.

PDA Basic requirement

Notice: This feature is only available on version 5.1 or above AP. For customers who are using 5.0 version of AP, please visit the Support/Download page to download and upgrade to the latest version of AP

1. CPU: Arm architecture, for example, Intel Xscale.
2. OS: MS Window Pocket PC 2002/2003 or Mobile 5 and above.
3. GPRS or WLAN module is recommended.

Windows Mobile Smartphone Basic Requirement

Notice: This feature is only available on version 5.7 or above AP. For customers who are using v5.5, v5.1 or v5.0 version of AP please visit the Support/Download page to download and upgrade to the latest version of AP

1. CPU: Arm architecture, for example, Intel Xscale.
2. OS: Windows-base, Windows Mobile 2002/2003 for Smart Phone Edition or Windows Mobile version.
3. Network module such as WAP, GPRS, WLAN....etc is required .

Symbian Smartphone Basic Requirement

Notice: This feature is only available on version 7.1 or above AP. For customers who are using v5.7, v5.5, v5.1 or v5.0 version of AP please visit the Support/Download page to download and upgrade to the latest version of AP

1. OS: Symbian Smartphone
2. The OS needs to support JAVA MIDP 2.0 (JAVA2 ME)
3. Network module such as WAP, GPRS, WLAN, etc is required.

*Hardware recommendations are the minimum required hardware specifications for running our systems and not a guarantee to achieve the best performance of our DVR systems. Hardware specifications required to achieve the best performance of our DVR systems are subjected to different system settings and operation conditions.