

NV8416 E4 Hybrid Windows Capture Card

**D1,
Real-Time &
H.264!**



Model Number(s):

- NV8416E4 - 16 Channel solution

Key Points:

- Includes Video Capture Card board
- *D1, Real-time solution!*
- Win 7/XP/Vista (32-bit) & 7 (64-bit) dr
- Supports all major IP camera brands
- IP and Analog PTZ camera support
- 1280 x 960 live video resolution
- POS integration
- Advanced alarm management
- Comprehensive remote access integration



The AVerMedia NV8416 E4 is **D1 with Real-time frame rates**. Need we say more? Welcome to the ultimate surveillance machine. Built on next generation PCI Express-4x technology, the system is designed to process massive amounts of video with extreme power and precision to deliver every meticulous surveillance detail.

Coupled with seamless network integration, intuitive video intelligence, powerful Visual and Intelligent search features, comprehensive remote and alarm management and more, the NV8416 E4 is built for power, precision and performance.

ADMINISTRATION

- Video Format: NTSC
- 352 x 240 (CIF), 640 x 480 (VGA), 720 x 240 (Half-D1) and 720 x 480 (D1) resolutions
- Real-time (30 fps) in all resolutions including D1
- Supports all major IP camera brands (check support list for camera model numbers)
- MegaPixel, IP and Analog PTZ cameras supported
- PTZ cameras - PTZ script is available for adding new protocols
- Video compression: Software H.264 and MPEG4
- Uncomplicated system and/or IP camera support updates through USB drives
- Virtual keyboard built-in and support's UPS

CONFIGURATION

- Pre-schedule many system functions including recording, backup, reboot, alarm and network events as a one-time or recurring weekly task in 15 minute increments
- Save time on multiple system setups by simply exporting and importing system configuration settings

CAPABILITIES

MONITORING

For environments that depend on live video, the NV8416 E4 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 up to 1280x1024 resolution!
- Dual monitor outputs
- 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
- "Attention Please" feature helps operator performance

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

Alarm/Notifications

The NV8416 E4 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 operating protocols to ensure proper adherence to procedures by security personnel
- Including manual on screen alarm trigger for emergencies
- Alarms can be reset both locally and remotely

INTELLIGENCE

To reduce security staffing and/or to manage high-volume video, the NV8416 E4 also provides intelligence that is triggered by:

- Motion Detection, sensor inputs and POS events
- Objects left or removed from monitored zones
- Video loss or HDD failure; initiates "Watchdog" function if needed to bring system back from faulty to normal operation
- Controlling false alarms by combining multiple alarm inputs to validate genuine events

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: optimized for static scenes or dynamic scenes

FORENSICS

For rapid retrieval/export of pertinent data:

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
- FaceFinder software - catalogs human faces from live video to facilitate quick searches based on facial recognition
- 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 playback while recording and/or performing network functions.
- Built-in sensitive playback controls (including frame-by-frame)
- Digital zoom incorporated for greater detail in playback video

Backup

- Based on chosen system, easily export/backup to DVR-RW/ CD-RW, flash memory, external HDD, NAS, SAN and RAID
- Export single images to BMP files or segments to AVI files
- Saved images are "Watermarked" to validate authenticity

POS INTEGRATION

- POS connection available on every channel along with iPOS function that allows transaction data searches and video playback right from the live monitoring screen
- Compatible with most commonly used POS systems
- To protect against employee tampering, system is integrated with a confidential key word filter
- POS keywords can be set to trigger alarms and notifications
- POS text location can be customized on video footage

CAPABILITIES

REMOTE

Multicasting

- iDispatch - For high-traffic video broadcasting, the NV8416 E4 will multicast video streams to drastically lower network, server and camera loads for effective remote viewing

Setup and configuration

- iSetup is bundled to make system changes remotely
- Remote backup capability is included with the NV8416 E4

Viewing

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

- WebViewer, PDAViewer, JavaViewer, SmartViewers & Remote Console
- Web - Using just a standard web browser, you can simultaneously view live and recorded video
- PDAViewer - With phones that support the PDAViewer, you can not only view live video, but can also view playback and control system sensors and relays
- 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

- Unlimited setup of user accounts with individually assigned passwords and user privileges
- User accounts can be set to activate or expire at specified dates

SPECIFICATIONS

NV8416 E4 Detailed Specifications

| Unit | | | |
|---|---|---|--------|
| Operating system | Windows XP/Vista (32-bit)/7 (32-bit & 64-bit drivers) | | |
| Compression | Software Compression: MPEG4, H.264 | | |
| Interface | PCI-Express x4 | | |
| Video Inputs (analog) | 16, BNC Connectors | | |
| Video (IP) | 16 IP H.264/MPEG4/MJPEG data streams | | |
| Video Out | N/A | | |
| Video Format | Analog | NTSC: 352 x 240 (CIF), 640 x 480 (VGA), 720 x 240 (Half-D1), 720 x 480 (D1) | |
| | IP | PAL: 352 x 288, 640 x 480, 720 x 288, 720 x 576 IP/Megapixel Camera Specific | |
| Recording Rates | Analog | CIF | 480fps |
| | | VGA | 480fps |
| | | Half-D1 | 480fps |
| | | D1 | 480fps |
| | IP | Per camera specifications | |
| Audio Input/Output | 16/1 | | |
| Alarm Inputs/Relay Outputs | 4/4 | | |
| 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 | | |
| Browser/Remote Client | MS Internet Explorer 6+, Windows 2000, XP, VISTA | | |

| 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 |
| Warranty | |
| 2 Year Limited Parts and Labor | |

NV Series Hardware Recommendations

Please visit our product pages at www.averusa.com/surveillance/categories.aspx for a detailed list of supported motherboards, graphic cards and more

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 |

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 v.5.5, 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 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.