Innovative NVR Solutions

(For Enterprise, SMB, SOHO, Home Applications)

+ Quiet
+ Power-saving

Environment Friendly

• PC-less network surveillance by HD local display   • 128-channel multi-server monitoring   • Megapixel recording

QNAP VioStor NVR

NVR Innovative Network Video Recorder
VS-8148U-RP/8140U-RP/8132U-RP/8124U-RP Pro
• 8-bay, 24TB, 2U chassis, 48/40/32/24-channel
• Intel® Core™ 3.3GHz CPU, 2GB DDR3 memory
• Redundant power supply available
• PC-less network surveillance by HD local display
• Max network throughput: 360 Mbps*

NVR Innovative Network Video Recorder
VS-8148/8140/8132/8124 Pro+
• 8-bay, 24TB, 48/40/32/24-channel
• Intel® Core™ 3.3GHz CPU, 2GB DDR3 memory
• PC-less network surveillance by HDMI or VGA local display
• High quality megapixel recording
• Max network throughput: 360 Mbps*

NVR Innovative Network Video Recorder
VS-6020/6016/6012 Pro
• 6-bay, 18TB, 20/16/12-channel
• Dual-core Intel® Atom™ CPU, 1GB memory
• PC-less network surveillance by HD local display
• High quality megapixel recording
• Max network throughput: 176 Mbps*

NVR Innovative Network Video Recorder
VS-4024 Pro/4020 Pro/4016 Pro/4012U-RP/4008U-RP Pro
• 4-bay, 12TB, 1U chassis, 16/12/8-channel
• Dual-core Intel® Atom™ CPU, 1GB memory
• Redundant power supply available
• PC-less network surveillance by HD local display
• High quality megapixel recording
• Max network throughput: 176 Mbps*

NVR Innovative Network Video Recorder
VS-4016/4012/4008 Pro
• 4-bay, 12TB, 16/12/8-channel
• Dual-core Intel® Atom™ CPU, 1GB memory
• PC-less network surveillance by HD local display
• High quality megapixel recording
• Max network throughput: 176 Mbps*
• Power-saving design, consumes only 35W

NVR Innovative Network Video Recorder
VS-2012/2008/2004 Pro
• 2-bay, 6TB, 12/8/4-channel
• Dual-core Intel® Atom™ CPU, 1GB memory
• PC-less network surveillance by HD local display
• High quality megapixel recording
• Max network throughput: 176 Mbps*
• Power-saving design, consumes only 25W

NVR Innovative Network Video Recorder
VS-2008L/2004L
• 2-bay, 6TB, 8/4-channel
• Marvell 1.2 GHz CPU, 256MB DDR2 memory
• Max network throughput: 28 Mbps*
• Power-saving design, consumes only 13W

QNAP is a member of **Onvif**

* The standard system is shipped without hard drives.
* Based on QNAP's laboratory tests. Actual performance may vary depending on the network environment.

Why QNAP NVR?

① **Supports a Broad Range of IP Cameras**
The VioStor NVR supports H.264, MPEG-4, M-JPEG, and MxPEG recording from over 1,100 IP camera models of many popular brands.

② **PC-less Network Surveillance by HD Local Display**
The VioStor NVR supports PC-less system configuration, monitoring of IP cameras over the network, and video playback by a monitor or high-definition TV, a USB mouse, and a USB keyboard.
* For VioStor Pro series NVR only.

③ **Multi-server Monitoring**
Connect to the VioStor NVR and add other QNAP NVR servers to monitor up to 128 channels on a PC over LAN or WAN.

④ **Intelligent Video Analytics (IVA) for Fast Video Retrieval**
The VioStor NVR supports intelligent video analytics (IVA), such as motion detection, missing object, foreign object, out of focus, and camera occlusion to provide fast video retrieval.

⑤ **Advanced Event Management**
The NVR provides various handling options when events are detected or alarms are triggered on the IP cameras.

⑥ **Mobile Surveillance by VMobile App**
With the VMobile app installed on the iPhone, iPad, iPod touch, Android phones, or Windows PDA, users can monitor home and office and receive instant event alert anytime, anywhere.

⑦ **RAID Data Protection**
The VioStor NVR supports RAID 1, 5, 6, 5+hot spare, 6+hot spare to protect the recording data against hard drive failure. Single disk, JBOD, and RAID 0 are also offered.
* The RAID levels supported depend on the number of hard drives installed.

**⑧** **Convenient Video Backup to External USB Storage**
Press the one touch auto video backup button on the front of the NVR to copy the data from the NVR to an external USB storage device.

⑨ **Linux-embedded System**
The VioStor NVR is a Linux-embedded system which is more power-saving and less vulnerable to virus attack compared to PC-based surveillance solutions.

Powerful Surveillance Features

Real-time Remote Monitoring
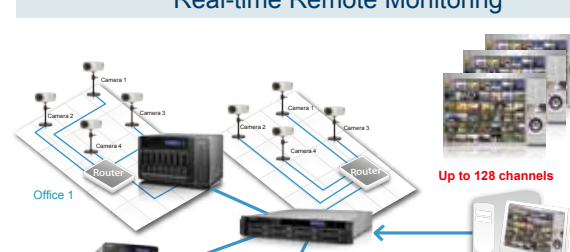
Up to 128 channels

• **Multi-server Monitoring**
Cascade to other VioStor NVR servers to monitor up to 128 IP cameras.

• **Diversified Remote Monitoring Modes**
– 1, 4, 6, 8, 9, 10, 12, 16, 20, 25, 36, 42-channel display mode
– Sequential display mode
– Exclusive Picture-in-Picture mode
– Dual display mode

• **Smart Control of PTZ & Speed Dome Cameras**
Adjust the PTZ cameras directly by the web-based and local display interface of the NVR.

• **Preset Position Control and Auto Cruising**
View different preset positions of the IP cameras and configure auto cruising settings on the VioStor NVR for periodic monitoring of the preset positions of the PTZ cameras.

• **Event Notification on Monitoring**
When alarm recording is enabled and an event occurs, an alarm icon is shown instantly on monitoring page. Click the icon to view the alert details.

• **Digital Zoom**
The VioStor NVR supports digital zoom for flexible monitoring and playback. It is a powerful function for megapixel IP cameras.

• **Video Snapshot**
The VioStor NVR provides real-time monitoring and snapshot. Users can take a snapshot of the monitoring screen anytime.

• **Dynamic E-map**
The VioStor NVR provides an E-map function for users to upload digital maps and indicate the locations of the IP cameras of a monitoring location or region.

High-definition (HD) Local Display

• **Intuitive Local Display Interface**
Configure the system, monitor the IP cameras and play the video conveniently via a USB mouse and a full HD (1920 x 1080) VGA monitor connected to VioStor NVR.
* For VioStor Pro series NVR only.

Most Complete Recording Functions

• **High Quality H.264, MPEG-4, M-JPEG, and MxPEG Recording**
Simultaneous multi-channel H.264, MPEG-4, M-JPEG, and MxPEG video recording of IP cameras.

• **Various Recording Functions**
– Continuous, manual, scheduled recording
– Alarm recording (by multiple alarm events)
– Multiple alarm recording schedules
– Pre-alarm and post-alarm recording
– Audio recording

• **High Performance Megapixel Recording**
The VioStor NVR supports high performance megapixel recording (up to 10-megapixel cameras supported) from various IP cameras.

• **ONVIF-conformant Cameras Support**
Connect to ONVIF network devices for monitoring, video recording, and playback on the NVR.

Convenient Backup Solution

• **Scheduled Remote Replication**
The VioStor NVR supports scheduled remote replication for secure recording backup to a remote NAS on LAN.

• **Video Backup to External USB Storage***
Configure and press the one touch auto video backup button to copy the recording data instantly from the NVR to an external storage device via the front USB interface.
* VS-8148U-RP/8140U-RP/8132U-RP/8124U-RP Pro do not support this feature.

Advanced Event Management

Advanced event management can be divided into two parts:

Events → Actions

Events
The VioStor NVR supports different event types, including motion detection, alarm input, connection failure, recording failure, and user-defined event to trigger follow-up actions.

• **Motion Detection**
When the IP camera detects any movement, the defined actions will be activated.

• **Alarm Input**
When the VioStor NVR receives a signal from the IP camera's alarm input, the defined actions will be activated.

• **Connection Failure**
When the VioStor NVR fails to connect to the IP camera, the defined actions will be triggered.

• **Recording Failure**
When the VioStor NVR fails to record video due to hard drive failure or system crash, the defined actions will be triggered.

• **User-defined Event***
The VioStor NVR supports user-defined events. You Enter the CGI command in the browser to trigger the event, and the defined actions will be activated.
* Enter the following URL in the browser to trigger the event:
http://NVR IP/cgi-bin/logical_input.cgi?name=**User-defined Event Name**

Actions
The NVR supports different actions when an event is triggered. These actions include multi-channel recording, adjusting the PTZ camera to the preset position, alarm output, built-in buzzer, email & SMS alert, and user-defined action.

• **Recording**
When an event is triggered, the VioStor NVR starts recording one or more channels at the same time.

• **Camera Control**
When an event occurs, the PTZ camera will be adjusted to the specified preset position for monitoring and recording. Use HTTP URL to activate further action.

• **Alarm Output**
When an event occurs, the alarm output from the IP cameras will trigger other alert systems, such as lighting system, auto phone dialing system, security system and so on.
* The VioStor NVR supports the alarm output of AXIS, Panasonic, SONY, ACTi, and VIVOTEK camera models.

• **SMS**
The VioStor NVR sends an SMS message to inform the specified recipients when an event occurs.

• **Email**
When an event occurs, the VioStor NVR sends an email with snapshot to notify the specified recipients.

• **Buzzer**
The buzzer in the VioStor NVR will sound when an event occurs.

• **User-defined Action**
The VioStor NVR supports user-defined actions. Enter the HTTP URL from other surveillance systems. When an alert occurs, the NVR will activate other systems, such as extinguishing system, electronic control system, and air-conditioning control system.

Example
When a moving object is detected by IP camera 1, the VioStor NVR triggers the alarm sensor connected to IP camera 1, adjusts the monitoring angle of IP camera 2 to the specified preset position, enables alarm recording on both cameras, and delivers email and SMS alert instantly to the administrator.

Playback Features

• **Multi-view Playback**
Use the multi-view playback feature to divide a video display into multiple sessions for playback in a multi-view window, or play the videos of multiple IP cameras in the multi-view window simultaneously.

• **Real-time Digital Watermarking**
The VioStor NVR supports digital watermarking to protect the videos and snapshots from unauthorized modification.

• **Data Search by Date & Time, Timeline, Event, and Intelligent Video Analytics (IVA)**
The VioStor NVR supports quick search of recording data by date and time, timeline, event, and intelligent video analytics (IVA), **including motion detection, foreign object, missing object, out of focus, and camera occlusion.**

Motion Detection:
Detects movement in the video. The moving objects of the search area are highlighted in red brackets.

Foreign Object:
Detects a new object in the video. The foreign objects of the search area are highlighted in yellow brackets.

Missing Object:
Detects a missing object in the video. The missing objects of the search area are highlighted in yellow brackets.
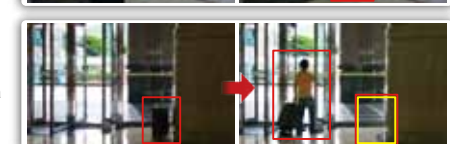
Out of Focus:
Detects if the IP camera is out of focus.
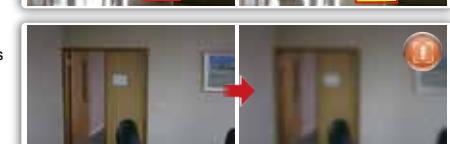
Camera Occlusion:
Detects if the IP camera is obstructed.
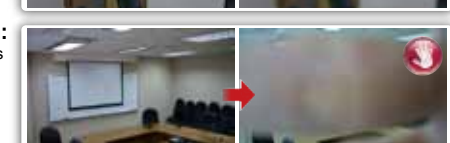
Security Control

• **Authority Management**
Up to 32 users can be created on the VioStor NVR. The users can be classified as administrator, system manager, or general users with specified rights of monitoring, video playback, PTZ camera control, and audio monitoring.

• **Auto Logoff**
The VioStor NVR supports automatic user logoff from idling configuration pages. The administrator can set the timeout period to log off the users when the idling time has reached.

• **Host Access Control**
Specify the host or IP connections to be allowed and denied to access the NVR.

• **Detailed Event Logs**
View the record of users currently logged on and previously logged on to the VioStor NVR.

• **On-line and Historical User Lists**
The VioStor NVR provides detailed event logs, such as system warning, hard disk error, network disconnection, motion detection and access to video files.

High Reliability and Smart Features

• **Intelligent Auto Power on after Power Recovery**
The VioStor NVR turns on automatically when the power recovers after an outage.

• **UPS Support for 24/7 Service**
The VioStor NVR supports APC, CyberPower, MGE, and YEC UPS devices to enable stable and continuous recording 24/7.

• **Advanced RAID Management**
The VioStor NVR supports RAID 0, 1, 5, 6, 5+hot spare, 6+hot spare, single, and JBOD disk configurations.
* The RAID levels supported depend on the NVR models and number of hard drives installed.

• **Online RAID Capacity Expansion**
The storage capacity of a RAID disk volume of the NVR can be expanded by replacing the hard drives with larger ones.

• **Online RAID Level Migration**
Upgrade the disk configuration of the NVR to a higher RAID level with the data retained. There is no need to turn off the server during the process.

Network Services

• **Dual Gigabit LAN Ports for Failover, Load Balancing, or Multi-IP Settings***
Up to 32 users can be created on the VioStor NVR.
▶ **Failover**
Failover allows the VioStor NVR to sustain the failure of one network port to provide continuous services.
▶ **Load Balancing**
Bandwidth aggregation is supported to boost the file transfer speed (works with managed Ethernet switch with 802.3ad configured).
▶ **Multi-IP Settings**
Two IP settings can be configured on the NVR to allow network access from two different subnets.

* VS-2008L and VS-2004L support one Gigabit RJ-45 Ethernet port only.

• **Dynamic DNS Service (DDNS)**
Register a unique domain name from a DDNS provider and assign it to the NVR to allow Internet access to the NVR using a domain name rather than an IP address.

• **Built-in NTP Server**
The date and time of the IP cameras can be synchronized with the VioStor NVR.

• **Convenient Data Access**
The recording data and snapshots on the VioStor NVR can be accessed by Microsoft Networking (SMB/CIFS), web-based management (HTTP), and FTP.

Easy Configuration and Management

• **Easy System Setup in Simple Steps**
The VioStor NVR provides quick setup for you to complete installation in simple steps.

• **Intuitive User Interface**
All the functions of the VioStor NVR can be managed anytime, anywhere via the web interface.

• **IP Camera Search for Quick Settings**
The VioStor NVR supports searching the IP cameras on the local network for quick configuration via the web-based management interface.

• **Quick Links to IP Cameras**
Configure the IP cameras by the administration interface of the VioStor NVR, or click the quick link buttons to connect to the management interface of the IP cameras.

About QNAP Security

QNAP Security, the world's first Linux-embedded NVR developer has implemented its award-winning storage and RAID technologies to offer its most innovative local display standalone NVR. The system not only ensures remarkable stability on remote monitoring, recording, and surveillance tasks under diverse environments but also renders great simplicity. In addition, the QNAP NVR solution allows users to choose suitable network cameras for various situations instead of being restricted to the resolution of traditional CCTV. To always be one step ahead, QNAP professional NVR team remains creative and committed to the integrity of their software and hardware. Furthermore, its great user experiences on wide range of supported devices and successful installations worldwide are more than enough to prove QNAP internationally.

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Forum: http://forum.qnapsecurity.com

Updates & Download

http://www.qnapsecurity.com/download.asp

Product Information

http://www.qnapsecurity.com

Dealer Seal

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Software Specifications

Recording
Video Compression:
• H.264, MPEG-4, M-JPEG, MxPEG (options available depend on the IP cameras)
Recording Mode:
• Continuous, manual, and scheduled recording
• Alarm recording; multiple alarm recording schedule
• Pre-alarm and post-alarm recording
• Auto snapshot (scheduled or hourly snapshot)
• Real-time digital watermarking
Recording Performance: (P1)
• Supports megapixel cameras
• Up to 30 fps at D1 or VGA for each channel
* Actual performance may vary depending on the environment and individual settings.
Recording Settings:
• Video compression, resolution, frame rate, quality, and audio recording
File Format:
AVI (QNAP codec is required for playback)

Local Display (P2)
Display Mode:
• 1, 4, 6, 8, 9, 10, 12-channel display, sequential display mode
Advanced Monitoring Features:
• Full screen display, event notification, PTZ control, and digital zoom
Local Playback:
• Single-view playback
Search Mode: By date & time
Playback Control:
• Play, pause, stop, reverse play, play next/ previous video file, and speed control
Advanced Playback Features:
• Full screen display
• Digital zoom

Remote Monitoring
Multi-server Monitoring:
• Up to 128 channels monitoring from multiple VioStor NVR servers
Display Mode:
• 1, 4, 6, 8, 9, 10, 12, 16, 20, 25, 36, 42-channel display, Picture-in-Picture, sequential mode, dual display mode
Advanced Monitoring Features:
• Full screen display, video snapshot, manual recording, event notification, PTZ control, and digital zoom
Dynamic E-map: Upload digital maps and indicate the locations of the IP cameras of a monitoring location or region.

Remote Playback
Search Mode:
• By date & time, timeline, event, and intelligent video analytics (IVA)
Intelligent Video Analytics (IVA):
• Motion detection, missing object, foreign object, out of focus, and camera occlusion
Playback Channel:
• Maximum 16-view playback from multiple NVR servers simultaneously
Playback Mode:
• Play, pause, stop, reverse play, next/previous

frame, next/previous video file, and speed control
Advanced Playback Features:
• Full screen display, video snapshot, digital zoom, and digital watermarking
Export:
• Multiple files export to an AVI file
Download:
• Video files and snapshots can be accessed by Web File Manager (HTTP), FTP, or SMB/ CIFS

Storage
Disk Management:
• Single disk, RAID 0, RAID 1, RAID 5, RAID 5 + hot spare, RAID 6, RAID 6 + hot spare, and JBOD (P1)
• Online RAID capacity expansion and online RAID level migration
• Hard disk S.M.A.R.T. and bad blocks scanning

LCD Panel (P3)
• PC-less RAID configuration for the first-time setup
• System and disk information checking, system shutdown and reboot, etc.

Network
Support:
• HTTP, TCP/IP, SMTP, DHCP, Static IP, DNS, DDNS, FTP, and NTP
Dual Gigabit LAN: (P4)
• Failover, load-balancing, multi-IP settings

Security Control
Access Right Management:
• Multiple accounts creation with different rights of monitoring, playback, PTZ control, and audio monitoring
Host Access Control: Control of allowed and denied access to the NVR
Auto Logoff: Automatic user logoff from idling configuration pages
Online Users List: Login status display of active users and login history
UPS: APC CyberPower, MGE, YEC (USB)
Event Logs: Detailed event logs

Languages
Czech, Danish, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Simplified Chinese, Traditional Chinese, Turkish

Client PC Requirements
(Suggested system requirements)
Operation System: Microsoft Windows 7, Vista, or XP
Web Browser: Internet Explorer 6.0 or later (32-bit)
Network Interface: 10/100/1000 Mbps
Display Resolution:
• Suggested 1024 x 768 pixels or above
* For higher surveillance performance, please select more advanced PC models.
(P1) Features may vary by model
(P2) VioStor Pro NVR series only
(P3) LCD-equipped models only
(P4) Dual LAN models only

IP Cameras Compatibility List

Brand	Models
AXIS	2100, 2110, 2120N, 206, 206M, 206W, 207, 207W, 207MW, 209FD, 209MFD-R, 210, 210A, 211A, 211, 211M, 211W, 212 PTZ-V, 213 PTZ, 214 PTZ, 215 PTZ-E, 216FD, 216FD-V, 216MFD, M1011, M1011-W, M1031-W, M3011, M3014, M5013, M5014, M7001, Q1755, Q6032, Q6034, P1343, P1344, P1346, P1347, P3301, P3301-V, P3343, P3344, P3346, P5534
ACTi	ACM-1011, ACM-1231, ACM-1232, ACM-1311, ACM-1431, ACM-1432, ACM-1511, ACM-3001, ACM-3011, ACM-3211, ACM-3311, ACM-3401, ACM-3411, ACM-3511, ACM-3601, ACM-3701, ACM-4000, ACM-4001, ACM-4100, ACM-4200, ACM-4201, ACM-5001, ACM-5601, ACM-5611, ACM-5711, ACM-7411, ACM-7511, ACM-8201, ACM-8211, TCM-1231, CAM-5221, CAM-5321, CAM-5421, CAM-5501, CAM-5610, CAM-5611, CAM-6221, CAM-6231, CAM-7301, CAM-7321, CAM-7322, TCM-3401, TCM-3411, TCM-4101, TCM-4201, TCM-4301, TCM-4511, TCM-5001, TCM-5311, ACD-2100, ACD-2200, ACD-2400, SED-2140, TCD-2100, TCD-2500
A-MTK	AM5000W, AM5120W, AM6120W, AM8200M, AM8530K, AM8720T, AM8221
Arecont Vision	AV1300, AV1310, AV1305, AV1315, AV1325, AV2100, AV2110, AV2105, AV2115, AV3100, AV3105, AV3110, AV3120, AV3130, AV5100, AV5105, AV5110, AV8180, AV8185, AV3130, AV5100, AV1305
AVTECH	AVI201, AVI202, AVI203, AVI204, AVI321, AVN211, AVN212, AVN213, AVN214, AVN252, AVN263
Brickcom	CB-100Ae, CB-100Ap, CB-101Ae, CB-101Ap, CB-102Ae, CB-102Ap, FB-100Ae, FB-100Ap, FD-100Ae, FD-100Ap, FD-130Np, FD-130Ne, FD-130Na, FD-130Np, OB-100Ae, OB-100Ap, MD-100Ap, OB-130Np, WCB-100Ap, WFB-100Ap
Canon	VB-C300, VB-C500D, VB-C50FSi, VB-C50Fi, VB-C60, VB-M40, VB-M400, VB-H410
Cisco	CIVS-IPC-2500W, PVC-300, WVC-210, PVC-2300, WVC-2300
CNB	IDC4050T, IDC4050, IXP4000VR, IDP4000VR, IGC2050, IGP1030, ING2050, IVC5050, IVP4000VR, ISC2000DNR, ISM3240, ISC2050, ISM3000
DIGITUS	DN16050, DN16051, DN16052, DN16053
D-Link	DCS-950G, DCS-900WP1, DCS-910, DCS-920, DCS-1100, DCS-2120, DCS-2102, DCS-2121, DCS-3110, DCS-3220G, DCS-3410, DCS-3420, DCS-5220, DCS-5300G3, DCS-5610, DCS-6110, DCS-6111, DCS-6620(G)
EDIMAX	IC-1510/WG, IC-3010/WG, IC-7000PT/W
ELMO	PTC-401C/IP, PTC-402C/IP, SN2255-IP3, SN2230-IP6, SN2232-IP, TD411d-IP, TD411H-IP2
Etrovision	EV8132, EV8150A, EV8151A, EV8152A, EV8180A, EV8250, EV8350A, EV8530, EV8531A, EV8591A, EV8150A, EV8180U, EV8181A, EV8780T, EV2130A4, EV3151A, EV3151AU, EV3630H
GANZ	ZN-C2DA, ZN-PT3A4, ZN-PT304N, ZN-YH20, ZN-S22
Hikvision	DS-2CD702P-E, DS-2CD752MF-F9, DS-2CD752MF-FB, DS-2CD702NF-F9, DS-2CD792PF-E, DS-2CD892PF-E, DS-2CD802NF-E, DS-2CD833F-E, DS-2CD873MF-EB, DS-2CD854F-E, DS-2CD855F-E, DS-2CD886MF-E, DS-2DF1-411, DS-2DF1-417, DS-2CD7133, DS-2CD7153, DS-6101HFI-IP-A
Honeywell	HCD544IP, HD54IP, HD54IP, HD44IP
IPUX	ICS-1001, ICS-1011, ICS-1003, ICS-1013, ICS-1100, ICS-1110, ICS-1300, ICS-1310, ICS-130A, ICS-131A, ICS-1600, ICS-1700, ICS-6000
IPX	DDK-1500, DDK-1500D, DDK-1800D
IQinVision	IQeye 510a/510, IQeye511a/511, IQ041S, IQ511, IQ701, IQ702, IQ703, IQ705, IQ711, IQ712, IQ732, IQ751, IQ752, IQ753, IQ755, IQ802, IQ803, IQ851, IQ852, IQ853, IQ855, IQeye030s, IQeye040s, IQeye041s, IQA10N, IQA11N, IQA12N, IQA13N, IQA12S, IQA11S, IQA12S, IQA13S, IQA31N, IQA11N, IQD31S, IQD31N, IQD10S, IQD11S, IQD12S, IQD31S, IQD31N, IQD30S
LevelOne	FCS-0010, WCS-2010, FCS-5020, FCS-0020, FCS-5030, WCS-0030, FCS-1010, WCS-2030, FCS-1040, BCS-2040, FCS-5040, FCS-1060, WCS-2060, FCS-1070, WCS-2070, FCS-1091, WCS-1060, FCS-3021, FCS-9011, FCS-0030
Linksys	PVC-2300, WVC-2300, PVC-300, WVC-200, WVC-210, WVC54GCA
MESSOA	NCB855, NCR875, NDF920, NDR890, NIC990, NIC905, NIC835, NIC900, NIC950
MOBOTIX	D12D-IT, D12D-Sec, D22M-Basic, D22M-IT, D22M-Sec, D24M-IT, D24M-Sec, M12D-Night, M12-DevKit-Board, M12D-IT-Night, M12D-Sec, M12M-IT, M12M-Sec, M12M-Web, M22M-IT, M22M-Night, M22M-Sec, M24M-IT, M24M-Sec, M24M-Sec-Night, Q22M-Basic, Q22M-Sec, Q24M-Basic, Q24M-Sec, Q24M-Sec-Night
NAVAYO	IPCAM3H
ONVIF	ONVIF 1.0.2 - Axis, Bosch, EverFocus, Hunt, VIVOTEK cameras
Panasonic	BB-HCM311, 331, BB-HCM403, BB-HCM527, 547, BB-HCM580, 581, BB-HCM701, BB-HCM715, 735, BL-C1, BL-C10, BL-C20, BL-C30(K1), BL-C101, BL-C111, BL-C121, BL-C131, BB-HCM705, BB-HCM715, BB-HCM511, BB-HCM531, BB-HCM511, BB-HCM527, BB-HCM580, BB-HCM581, BB-HCM405, BB-HCM735, BL-C1, BL-C31
Panasonic i-Pro	NP240, NP284, NF302, NP2050, NS202A, NS242, NS314, NW502A, NS474, NW324, NS202A2, NS502, NS954, NW484S, NW960, NW964, SC385, SC384, SP305, SP302, SF334, SF335
Pelco	IM10, IXE20
Samsung	SNB-2000, SNB-3000, SNC-570, SNC-1300, SNC-B2315, SNC-B5395, SNP-3120, SNV-3080N, SNV-5120, SNV-5010, SPE-100
SANYO	VCC-9500, VCC-9600, VCC-9700, VCC-9800, VCC-9900, VCC-HD2100, VCC-HD2300, VCC-HD2500, VCC-HD3300, VCC-HD4000, VCC-HD4600, VCC-HD5100, VCC-HD5400, VCC-HD4600P2, VCC-XZ200, VCC-XZ600
SHANY	SNC-1010, SNC-1030IN, SNC-210, speed dome camera, SNC-L81040, SNC-MP310DN, SNC-MR2150N, SNC-WDM 211DN
SONY	SNC-CH110, SNC-CH120, SNC-CH140, SNC-CH180, SNC-CH210, SNC-CH240, SNC-CM120, SNC-CS10, SNC-CS11, SNC-CS20, SNC-CS50, SNC-DF40, SNC-DF70, SNC-DF80, SNC-DF85, SNC-DH110, SNC-DH210, SNC-DF85P, SNC-DH180, SNC-DH240, SNC-RH124, SNC-RH164, SNC-RS44N, SNC-RS46N, SNC-RX570, SNC-RX550, SNC-RZ25, SNC-RZ30, SNC-RZ50, SNC-Z20, SNT-EP154, SNT-EX104, SNT-V304, SNT-V704
TOA	N-CC2130, N-CC2700, N-CC2230, N-CC2360, N-CC2800, N-CC2361, N-CC2600, N-YT3011
TOSHIBA	IK-WB11A, IK-WB15A, IK-WB16A, IK-WB21A, IK-WB30A, IK-WB50A, IK-WD01A, IK-WR12A
TRENDnet	TV-IP212(W), TV-IP312(W), TV-IP512P(W), TV-IP422(W)
Videosec	IP-206W, IP-206W, MP-2811, BL211, ID-206, IDA-210, IDA-211, IPT-213, IPT236W, IPTA-215, IPTZ-214, SI-240
VIVOTEK	AC3309A, AC3335HGP, EV3101, IP3112W-GP, FD8133V, FD8134, FD8151V, FD8331, FD8133, IP8132, FD7130, FD7131, FD8361, IP8332, IP8330, FD8134, FD8161, IP8161, FD8133V, IP8152, IP8151, IP8162, IP7132, IP7137, IP7138, IP7139, IP7142, IP7161, IP7251, IP7330, IP7361, PZ7121, PZ7122, PZ7131, PZ7132, PZ7151, PZ7152, SD7151, SD7313, SD7313E, SD8111, SD8121, SD8161, SD8362, IP8151, IP8362, IP8361, FD8135H, FD8136, PZ8111, PZ8121, PZ8122, IZ7151, MD7530, MD8561, SF8171, SF8172, SF8173, VS7100, VS8102, VS8401
Y-Cam	Y-Cam White, Y-Cam Black
Yudor	YC142, YC162, YC155

► For the latest information of the supported IP cameras, please visit QNAP Security website: http://www.qnapsecurity.com/pro_compatibility_camera.asp

Comparison of VioStor NVR Series

Product Photo							
NVR Model	VS-8148U-RP/8140U-RP/8132U-RP/8124U-RP Pro+	VS-8148/8140/8132/8124 Pro+	VS-6020/6016/6012 Pro	VS-4016U-RP/4012U-RP/4008U-RP Pro	VS-4016/4012/4008 Pro	VS-2012/2008/2004 Pro	VS-2008L/2004L
Max. number of supported IP cameras/channels (recording)	48/40/32/24	48/40/32/24	20/16/12	16/12/8	16/12/8	12/8/4	8/4
Video server support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
High-definition local display	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Multi-server monitoring	Yes (up to 128 channels)	Yes (up to 128 channels)	Yes (up to 128 channels)	Yes (up to 128 channels)	Yes (up to 128 channels)	Yes (up to 128 channels)	Yes (up to 128 channels)
Video compression (IP camera)	H.264, MPEG-4, M-JPEG & MxPEG (depending on the camera models)	H.264, MPEG-4, M-JPEG & MxPEG (depending on the camera models)	H.264, MPEG-4, M-JPEG & MxPEG (depending on the camera models)	H.264, MPEG-4, M-JPEG & MxPEG (depending on the camera models)	H.264, MPEG-4, M-JPEG & MxPEG (depending on the camera models)	H.264, MPEG-4, M-JPEG & MxPEG (depending on the camera models)	H.264, MPEG-4 & M-JPEG (depending on the camera models)
Max. network throughput tested (P1)	360 Mbps	360 Mbps	176 Mbps	176 Mbps	176 Mbps	176 Mbps	28 Mbps
Megapixel recording	Yes (up to 10-megapixel)	Yes (up to 10-megapixel)	Yes (up to 10-megapixel)	Yes (up to 10-megapixel)	Yes (up to 10-megapixel)	Yes (up to 10-megapixel)	Yes
Multi-view playback	16-view	16-view	16-view	16-view	16-view	16-view	16-view
Intelligent video analytics (IVA)	Motion detection, missing object, foreign object, out of focus, and camera occlusion	Motion detection, missing object, foreign object, out of focus, and camera occlusion	Motion detection, missing object, foreign object, out of focus, and camera occlusion	Motion detection, missing object, foreign object, out of focus, and camera occlusion	Motion detection, missing object, foreign object, out of focus, and camera occlusion	Motion detection, missing object, foreign object, out of focus, and camera occlusion	Motion detection, missing object, foreign object, out of focus, and camera occlusion
Real-time digital watermarking	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Advanced event management	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote replication (P2)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of hard drive slots	8	8	6	4	4	2	2
Physical storage capacity (P3)	24TB (8 x 3TB hard drives)		18TB (6 x 3TB hard drives)	12TB (4 x 3TB hard drives)		6TB (2 x 3TB hard drives)	
Hard drive interface	3.5-inch SATA, 2.5-inch SATA, SSD	3.5-inch SATA, 2.5-inch SATA, SSD	3.5-inch SATA, 2.5-inch SATA, SSD	3.5-inch SATA, 2.5-inch SATA, SSD	3.5-inch SATA, 2.5-inch SATA, SSD	3.5-inch SATA, 2.5-inch SATA, SSD	3.5-inch SATA
RAID	RAID 0, 1, 5, 5+hot spare, 6, 6+hot spare	RAID 0, 1, 5, 5+hot spare, 6, 6+hot spare	RAID 0, 1, 5, 5+hot spare, 6, 6+hot spare	RAID 0, 1, 5, 5+hot spare, 6	RAID 0, 1, 5, 5+hot spare, 6	RAID 0, 1	RAID 0, 1
Processor	Intel® Core™ i3 3.3GHz	Intel® Core™ i3 3.3GHz	Dual-core Intel® Atom™	Dual-core Intel® Atom™	Dual-core Intel® Atom™	Dual-core Intel® Atom™	Marvell 1.2 GHz
LCD panel	Yes	Yes	Yes	—	Yes	—	—
Number of Gigabit LAN ports	2	2	2	2	2	2	1
Number of USB ports	2 x USB 2.0 2 x USB 3.0	2 x USB 2.0 2 x USB 3.0	5 x USB 2.0	5 x USB 2.0	5 x USB 2.0	5 x USB 2.0	3 x USB 2.0
Redundant power supply	Yes	—	—	Yes	—	—	—
Hardware dimensions	86(H) x 438(W) x 520(D) mm 3.48(H) x 17.28(W) x 20.47(D) inch	217.5(H) x 327(W) x 321.2(D) mm 8.56(H) x 12.8(W) x 12.65(D) inch	175(H) x 257(W) x 235(D) mm 6.89(H) x 10.12(W) x 9.25(D) inch	44(H) x 438(W) x 488(D) mm 1.73(H) x 16.97(W) x 19.65(D) inch	177(H) x 180(W) x 235(D) mm 6.97(H) x 7.09(W) x 9.25(D) inch	150(H) x 102(W) x 218(D) mm 5.91(H) x 4.02(W) x 8.5(D) inch	165.5 (H) x 85 (W) x 218.4 (D) mm 6.52 (H) x 3.35 (W) x 8.60(D) inch
Gross weight	20.76 kg / 45.78 lb	13.98 kg / 30.79 lb	6.5 kg / 14.33 lb	12.06 kg / 26.59 lb	4.65 kg / 10.24 lb	2.92 kg / 6.44 lb	1.9 kg / 4.19 lb

(P1) Based on QNAP's laboratory tests. Actual performance may vary depending on the network environment.
(P2) Local network only.
(P3) The standard system is shipped without hard disk drives.

QNAP Software Utilities

QNAP Finder
The QNAP Finder helps users find the VioStor NVR servers and the IP cameras of popular brands on the local network for quick configuration and connection.

VioStor Player
The VioStor Player is an application for playing the video files recorded by the VioStor NVR on a Windows PC or by the web interface of the NVR. Use this application to add digital watermark on the video files and snapshots exported from the NVR.

Watermark Proof (installed with VioStor Player)
Use this utility to detect unauthorized modification of the video files and snapshots with digital watermark exported from the NVR.

VMobile
The VMobile app is a mobile surveillance application for users to monitor the IP cameras configured on the VioStor NVR remotely by iPhone, iPad, iPod touch, Android phones, or Windows PDA. The users will be notified by instant SMS when specified events are triggered at the monitored areas.

Green NVR Solution

The Linux-based VioStor NVR is more power-saving than PC-based surveillance solutions.

Power Consumption

Model	Watts
VS-2008L/2004L	13W
VS-2012/2008/2004 Pro	25W
VS-4016/4012/4008 Pro	32W
VS-4016U/4012U/4008U-RP Pro	62W
VS-6020/6016/6012 Pro	43W
VS-8148/8140/8132/8124 Pro+	101W
VS-8148U/8140U/8132U/8124U-RP Pro+	130W
PC-based server solution	600W

Industry Solutions

The VioStor NVR is ideal for secure IP video surveillance of different locations such as home, small offices, convenience stores, retail and healthcare outlets, banks, schools, and more.

Surveillance videos of the IP cameras are recorded on the internal hard drives of the VioStor NVR and the unit is configured as an existing network and can be configured and monitored from any PC on the local network or the Internet.

Industry Solutions categories:
Shopping Mall, Home, Schools & Kindergartens, Banks & ATMs, Childcare, Hospitals, Convenience Stores, Factories, Security Stations, Cities & Towns, Fauna Conservation Area, Parking Lots, Traffic, Sporting Events, Elder Care

NVR UioStor
Innovative Network Video Recorder
Network Surveillance System for IP Cameras