

# VS-2012/ 2008 VioStor NVR

Network Surveillance System for SOHO and SMB  
QNAP Network Video Recorder for IP Cameras

Live Monitoring, Recording, and Video Playback over the Internet Anytime, Anywhere  
*Secure Life, Secure Property*

**Intelligent Video Analytics**

- Motion Detection
- Foreign Object
- Missing Object
- Out of Focus
- Camera Occlusion

**Environment Friendly**

- Quiet
- Power-saving

**intel Atom inside**

**1GB DDRII Memory**

## Powerful All-in-one Recording Functions

- Continuous/ manual/ schedule recording
- Alarm recording (by motion detection or sensor triggered)
- Multiple alarm recording schedules
- High performance megapixel recording
- High quality H.264, MxPEG, MPEG-4, and M-JPEG recording
- Audio recording (vary by camera models)

## Powerful Surveillance Features

- Diversified modes for live monitoring
- Smart control of PTZ cameras and auto cruising
- Event notification on monitoring
- Real-time SMS and email alert
- Multi-channel playback at different speed
- Easy data search by date & time, timeline, event, and intelligent video analytics (motion detection, foreign object, missing object, out of focus, and camera occlusion)
- Enhanced file security by digital watermark

## Easy to Use

- Trouble-free 6-step installation
- Intuitive web-based user interface
- Smart search of IP cameras for quick settings
- Drag and drop function on monitoring

## High Reliability and Smart Features

- Intel® Atom™ CPU and 1GB DDRII memory
- Advanced RAID(RAID 0/ 1/ JBOD) with hot-swap design
- Ultra large storage capacity (up to 4TB) for long-term recording
- Intelligent auto power on when power resumes after power outage
- Supports UPS for 24x7 service
- Two Gigabit LAN ports for failover, load-balancing, or multi-IP setting
- Green NVR solution: Linux-embedded system, low power consumption (37~44W)



**Real-time monitoring  
over the Internet anytime, anywhere !**

# VS-2012/2008

Secure Life, Secure Property



## High Performance Network Surveillance System for SOHO and SMB

QNAP VS-2012/2008 NVR is the new generation 2-bay network surveillance system for the small and mid-sized business market. The NVR features Linux OS, Intel® Atom™ CPU and 1GB DDRII memory. It supports high quality real-time monitoring, megapixel recording, H.264, MxPEG, MPEG-4, and M-JPEG recording from popular IP camera brands such as **AXIS, ACTi, Arecont Vision, AVTECH, Canon, D-Link, EDIMAX, ELMO, EtrOVision, GANZ, Hikvision, iPUX, IQeye, LevelOne, Messoa, MOBOTIX, Panasonic BB/ BL/ i-Pro, SANYO, SONY, TOSHIBA, TRENDnet, VIVOTEK, and Y-CAM.**

The VS-2012/2008 NVR houses 2 hot-swappable SATA hard drives which are capable of maximum 4TB storage capacity. The unique multi-server monitoring enables the users to monitor up to 120 IP cameras from multiple QNAP NVR servers without any extra software. Diversified recording features

such as schedule recording, alarm recording, alarm recording schedule, pre-alarm, and post-alarm recordings are also provided.

The NVR offers enhanced **video search by intelligent video analytics (IVA), including motion detection, foreign object, missing object, out of focus, and camera occlusion.** The NVR can be easily set up in 6 simple steps by the IE browser. An intuitive user interface is provided for the users to view the monitoring screens, connection and recording status, and the network bandwidth. The users can also play the recording data at different speed. Other class-leading server are also available, e.g. advanced data protection by RAID 0, RAID 1 and JBOD, Online RAID Capacity Expansion, Online RAID Level Migration, and two Giga LAN ports for network failover, load-balancing, and multi-IP setting.

## Powerful Surveillance Features



### • Diversified 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



### • Easy Drag and Drop Function on Monitoring

The VioStor NVR supports drag and drop function to change the display order of the monitoring channels.

### • Smart Control of PTZ & Speed Dome Cameras

You can adjust the PTZ cameras directly by the web user interface.

### • Preset Position Control and Auto Cruising

You can view different preset positions of the IP cameras by clicking the number buttons on the monitoring page. You can also configure auto cruising settings on the VioStor NVR for periodic monitoring of the preset positions of the PTZ cameras.

### • Digital Zoom for Monitoring and Playback

The VioStor NVR supports digital zoom for more flexible monitoring and playback.

### • Event Notification

When alarm recording is enabled and an event occurs, you can click the alarm icon on monitoring page to view the alert details.

### • Video Snapshot

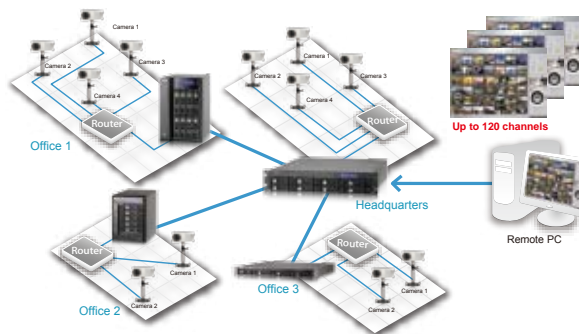
The snapshot function is supported on monitoring and playback page.

### • E-map for Easy Preview of the Camera Location

You can upload the pictures of the monitoring location.

### • Multi-server Monitoring

You can connect to the VioStor NVR and add other QNAP NVR servers to monitor up to 120 channels over LAN or WAN.



### • All-in-one Recording Functions

- Continuous/ schedule\*/ manual recording
- Alarm recording/ multiple alarm recording schedules\*
- High quality H.264, MxPEG, MPEG-4, and M-JPEG recording
- Up to 30 fps at D1 or VGA for each camera
- High performance megapixel recording
- Audio recording (vary by camera models)
- \* Up to 15 schedules are supported for each camera

### • Generic IP Cameras Support

QNAP NVR provides an interface for you to enter the JPEG CGI command of IP cameras in order to monitor, record, and playback the video of the IP cameras on the NVR.

### • Real-time SMS and Email Alert

The NVR sends SMS and e-mail alert to the administrator immediately in case of system error or emergent events.



### • Authority Management

You can configure the monitoring, playback, PTZ control, and audio authority of specified cameras for up to 32 users.

### • On-line User List and Host Access Control

You can specify the connections to be allowed and denied to access the VioStor NVR. You can also view the record of users currently logged on and previously logged on to the VioStor NVR.

### • Schedule Remote Replication

The VioStor NVR supports schedule remote replication for secure data backup to a remote NAS in the local network.

### • Advanced Event Logs

The VioStor NVR provides detailed event logs of system warning, hard disk error, network disconnection, UPS status, users' networking services, and recordings access record.





### • Multi-channel Playback at Different Speed

The VioStor NVR provides Express Quad View Playback that you can either divide the selected time equally into four playback views or play the video of four cameras at the same time.

### • Enhanced File Security by Digital Watermark

The digital watermark technology allows you to check if the exported videos and snapshots of VioStor NVR are modified to enhance the file security.



### • 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, and events, and intelligent video analytics, including **motion detection**, **foreign object**, **missing object**, **out of focus**, and **camera occlusion**.

#### Motion Detection:

The moving objects of the searching area are highlighted in red brackets.



#### Foreign Object:

The foreign objects of the searching area are highlighted in yellow brackets.



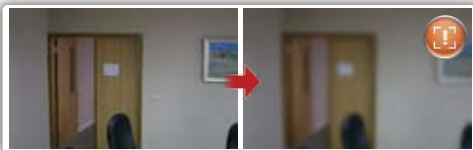
#### Missing Object:

The missing objects of the searching area are highlighted in yellow brackets.



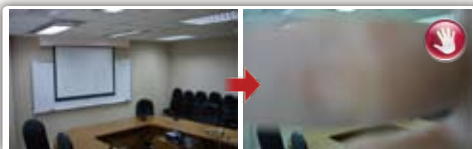
#### Out of Focus:

Detects if the IP camera is out of focus.



#### Camera Occlusion:

Detects if the IP camera is obstructed.



## High Reliability and Smart Features

### • Advanced RAID (0/ 1/ JBOD) with Hot-swap Design

### • Online RAID Capacity Expansion and Online RAID Level Migration

- Online RAID Capacity Expansion  
The storage capacity of a RAID configuration can be expanded by replacing the hard drives with larger ones.
- Online RAID Level Migration  
You can upgrade the disk configuration to higher RAID level with the data retained. There is no need to turn off the server during the process.

### • Auto Logoff

The administrator can set the timeout period to log off the users when the idling time has reached in order to enhance secure management of the NVR.

### • S.M.A.R.T. & Advanced HDD Health Scanning (HHS)

### • Intelligent Automatic System Startup when Power Resumes after Power Outage

### • Support UPS for 24x7 Service

With UPS, the NVR can function normally in case of power outage or unstable power supply.

### • Convenient Video Backup to External USB Storage by One Touch Auto Video Backup Button

### • DOM Architecture with Embedded Fail-safe Dual OS for Enhanced Reliability

## Excellent Hardware Design

### • Intel® Atom™ CPU and 1GB DDRII Memory for Superior System Performance

### • Green NVR Solution: Linux-embedded System with Low Power Consumption

#### Low Power Consumption

QNAP VS-2012/2008 VioStor NVR Write/Read  
PC-based NVR solution Write/Read

37 ~ 44W

350W

### • Up to 4TB Storage Capacity for Long-term Recording

### • Lockable HDD Tray

### • Two Gigabit LAN Ports for Failover, Load-balancing, or Multi-IP Setting

#### • 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 Setting

The VioStor NVR can be deployed with two different IP settings for sharing among different workgroups in two different subnets.



## Powerful Network Services

### • DDNS Support & Built-in NTP Server

### • Convenient Data Access by Network Neighborhood (SMB/ CIFS) / Web File Management (HTTP) / FTP server

## Application: Live Monitoring, Recording, and Video Playback over the Internet Anytime, Anywhere

### • Business Service

- Live production line monitoring for quality and security control
- Department store/ mall monitoring
- Shipping process recording
- Crime prevention, e.g. shoplifting
- Parking lot monitoring
- Construction site monitoring
- Convenience store security
- Campus security

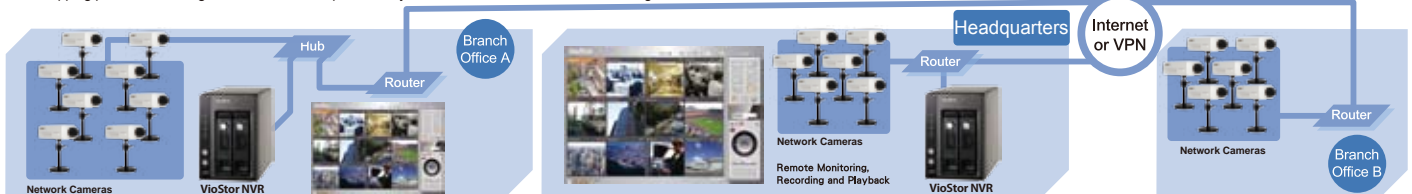
- Server room security
- Gas station security
- Hotel security
- Multiple remote offices/ factory sites live monitoring

### • Office Management

- Real-time office monitoring from remote locations
- In-house office monitoring
- Office security fortification
- False alarm identification

### • Home Care

- Home surveillance to secure life and property
- Enhanced protection for kids, elders, and pets
- Crime prevention
- Evidence or aid to police investigations



# Hardware Specifications

## Processor

- Intel® Atom™

## Memory

- 1GB DDRII RAM, 128MB flash (DOM)

## HDD Capacity

- 2 x 3.5" SATA I/II HDD or 2 x 2.5" SATA HDD (the standard system is shipping without HDD)

## HDD Tray

- 2 x hot-swappable and lockable tray

## LAN Port

- 2 x Gigabit RJ-45 Ethernet port

## LED Indicators

- HDD 1, HDD 2, LAN, eSATA

## eSATA

- 2 x eSATA port (back); reserved

## USB

- 3 x USB 2.0
- Front: for USB storage device (one touch auto video backup)
- Back: for UPS device

## Buttons

- One touch auto video backup button, power button, reset button

## Form Factor

- Tower

## Hardware Dimensions

- 150 (H) x 102 (W) x 216 (D) mm
- 5.91 (H) x 4.02 (W) x 8.5 (D) inch

## Weight

- Net weight: 1.74 kg/ 3.84 lb
- Gross weight: 2.92 kg/ 6.44 lb

## Operation Environment

- Temperature: 0~40°C/ 32~104°F
- Humidity: 0%~95% R.H.

## Fan

- 1 x quiet cooling fan (7 cm, 12V DC)

## Power Supply

- External power adaptor, 60W, input: 110~240V

## Power Consumption

- In operation: 37~44W

## Secure Design

- K-Lock security slot

## VGA

- Reserved

## Certification

- CE, FCC, VCCI, BSMI

# Software Specifications

## Video

**Display Mode:** 1/4/6/8/9/10/12/16/20/25/36/42-channel display, Picture-in-Picture mode, sequential mode, dual display mode

### Multi-server Monitoring:

Up to 120 channels monitoring from multiple QNAP NVR servers

### Recording Connection:

- ◆ VS-2012: Up to 12 channels
- ◆ VS-2008: Up to 8 channels

### Compression Format:

H.264/ MxPEG/ MPEG-4/ M-JPEG (vary by camera models)

**Video Setting:** Resolution, quality, frame rate

**E-map:** Upload E-map

## Recording

### Recording Mode:

- ◆ Continuous/ manual/ schedule\* recording
- ◆ Alarm recording/ multiple alarm recording schedules\*

\* Up to 15 schedules are supported for each camera

### Buffer Storage for Alarm Images (before and after Events):

Pre-recording: up to 300 sec; post-recording: up to 300 sec (Total 600 sec/ 10 min)

### Recording Performance:

- ◆ Up to 30 fps at D1 or VGA for each camera
- \* Real performance may vary in different environment

**Megapixel Recording:** Supports megapixel cameras

**File format:** AVI (QNAP codec is needed for playback)

## Playback

**Playback Channel:** Max 4-channel playback at the same time

**Playback Mode:** Play, pause, stop, reverse play, next/ previous frame, next/ previous video file, different speed control

**Display Mode:** Single playback view, 4 playback views

**Search Mode:** By date & time, timeline, event, and intelligent video analytics (IVA)

**Playback Enhancement:** Full screen display, video snapshot, digital zoom, digital watermark

**Export:** Convert multiple recording files to one avi file

**Download:** Download recordings via the web

## Security

**Operation System:** Linux-embedded system

**On-line Users List:** Record of users currently logged on and previously logged on to the NVR

**Host Access Control:** Specify the connections to be allowed and denied to access the NVR

**Authority Management:** Configure different authority of specified cameras for max 32 users

**Alert Notification:** Buzzer, event notification, SMS, e-mail alert

**Auto Logoff:** The administrator can set the timeout period to log off the users when the idling time has reached

**Digital Watermark:** Enhanced file security by digital watermark

**UPS:** APC/ MGE (USB type UPS)

**Event Log:** Detailed record of all events

## Storage

### Disk Management:

- ◆ Single, RAID 0, RAID 1, JBOD/ Linear
- ◆ Online RAID Capacity Expansion, Online RAID Level Migration
- ◆ HDD S.M.A.R.T., bad blocks scan

**Services:** Web File Manager, FTP, SMB/ CIFS

## Network

**Support:** HTTP, TCP/IP, SMTP, DHCP, static IP, DNS, DDNS, FTP, NTP, UPnP, failover, load-balancing, multi-IP setting

**Dual Gigabit LAN:** Failover/ load-balancing/ multi-IP setting

## Language Support

Danish/ Dutch/ English/ French/ Finnish/ German/ Hungarian/ Italian/ Japanese/ Korean/ Norwegian/ Polish/ Portuguese/ Russian/ Spanish/ Swedish/ Simplified Chinese/ Traditional Chinese

## Client PC Requirements

(Suggested system requirements for better video performance)

**CPU:** ◆ M-JPEG format (up to 12 channels):

- Intel® Pentium® 4 CPU 2.4 GHz or above
- ◆ H.264/ MxPEG/ MPEG-4 format (up to 12 channels):
- Dual core CPU 2.4 GHz or above

\* For higher surveillance performance, please select more advanced PC models

**Memory:** 1 GB or above

**Operation System:** Microsoft Windows XP/ Vista

**Browser:** Internet Explorer 6.0 or later

**Network Interface:** 10/100/1000 Mbps

**View Resolution:** 1024 x 768 pixels or above

## Utility Software

**QNAP Finder:** Discovery and quick setup for NVR

**VioStar Player:** Play the recording files on your Windows computer easily

\* Designs and specifications are subject to change without notice.

# Package Contents



Brand	Models	VS-2012	VS-2008
		12 channels	8 channels
AXIS	208M/ 207/ 207W/ 207M/ 207MW/ 209FD/ RJ/ 210/ 210A/ 211A/ 211/ 211W/ 211M/ 212/ 213/ 214/ 215/ 216FD/ 216MFD/ 221/ 223M/ 225FD/ 231/ 232/ 233D/ P1311/ P3011/ P3301/ P3343/ P3344/ Q1755/ Q7401/ Q7404/ M1011/ M1011-W/ M1031-W/ M3011/ M3014/ M7001/ 241Q/ 241QA/ 241S/ 241SA/ 243SA/ 247S	●	●
ACTI	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-4000/ ACM-4001/ ACM-4100/ ACM-4200/ ACM-5001/ ACM-5601/ ACM-5611/ ACM-5711/ ACM-7411/ ACM-8211/ ACM-8511/ ACM-5201/ CAM-5221/ CAM-5301/ CAM-5321/ CAM-6500/ CAM-6600/ CAM-6610/ CAM-6620/ CAM-6630/ CAM-7300/ CAM-7321/ CAM- 7322/ ACD-2100/ ACD-2200/ ACD-2300/ ACD-2400/ ACD-2000G/ SED-2140/ SED-2120/ TCM-4301/ TCM-5311	●	●
Arecont Vision	AV1300/ AV1305/ AV1355/ AV2100/ AV2105/ AV2155/ AV3130/ AV3100/ AV3105/ AV3155/ AV5100/ AV5155/ AV5180/ AV8185/ AV8360/ AV8365	●	●
AVTECH	AV1201/ AV1202/ AV1203/ AV1204/ AV1322	●	●
Canon	VB-C300/ VB-C300B/ VB-C50R/ VB-C50V/ VB-C50FS/ VB-C50FV/ VB-C500D/ VB-C60	●	●
Cisco	CIVS-IPC-2500/ CIVS-IPC-2500W	●	●
D-Link	DCS-900(A)/ DCS-900(B1)/ DCS-900(B2)/ DCS-910/ DCS-920/ DCS-2102/ DCS-2120/ DCS-2121/ DCS-3220(G)/ DCS-3420/ DCS-5220/ DCS-5300(G)/ DCS-6620(G)	●	●
EDIMAX	IC-1510/ IC-1510WG/ IC-3010/ IC-3010WG/ IC-7000PT/ IC-7000PTN	●	●
ELMO	PTC-401C-IP/ PTC-402C-IP/ SN2230-IP2/ SN2230-IPW/ SN2232-IP/ TD4112-IP/ TD4114 IP2	●	●
EtroVision	EV3130/ EV3131/ EV3131A/ EV3830/ EV6130/ EV6332/ EV6530/ EV6531A/ EV6552A	●	●
GANZ	ZN-D2024/ ZN-PT304L/ ZN-PT304WL/ ZN-YH305/ ZV-S306	●	●
Hikvision	DS-2CD792PF-E/ DS-2CD852MF-E/ DS-2CD892PF-E	●	●
iPUX	ICS 1001/ ICS 1011/ ICS 1003/ ICS 1013/ ICS 1300/ ICS 1310/ ICS 130A/ ICS 131A	●	●
IQeye	IQ040S/ IQD40S/ IQ041S/ IQD41S/ IQ042S/ IQD42S/ IQ051/ IQ0511/ IQ0701/ IQ0702/ IQ073/ IQ075/ IQ0710/ IQ0711/ IQ0712/ IQ0751/ IQ0752/ IQ0753/ IQ0755/ IQ0802/ IQ0803/ IQ0805/ IQ0811/ IQ0851/ IQ0852/ IQ0853/ IQ0855/ IQA10S/ IQA10N/ IQA11S/ IQA11N/ IQA12S/ IQA12N/ IQA13S/ IQA13N/ IQA15S/ IQA15N/ IQA20S/ IQA20N/ IQA21S/ IQA21N/ IQA22S/ IQA22N/ IQA23S/ IQA23N/ IQA25S/ IQA25N	●	●
LevelOne	FCS-0010/ WCS-0010/ FCS-0020/ WCS-0020/ FCS-1010/ WCS-1010/ FCS-1030/ WCS-2030/ FCS-1040/ WCS-2040/ FCS-1060/ WCS-2060/ FCS-1070/ WCS-2070/ FCS-109X/ WCS-109X/ FCS-3000/ FCS-3021/ FCS-5030	●	●
Linksys	PVC-2300/ WVC-200/ WVC54GCA	●	●
MESSOA	ND2860 H2/ NIC835 HNS/ NIC836	●	●
MOBOTIX	D12D-IT/ D12D-Sec/ D22M-Basic/ D22M-IT/ D22M-Sec/ M10D-Night/ M12D-IT/ M12D-Sec/ M12M-IT/ M12M-Sec/ M12M-Web/ M22M-IT/ M22M-Night/ M22M-Sec/ Q22M-Basic/ Q22M-Sec/ Q24M-Sec	●	●
NAKAYO	IPCAMDH	●	●
Panasonic	BB-HCM100/ BB-HCM110/ BB-HCM311/ BB-HCM331/ BB-HCM371/ BB-HCM381/ BB-HCM403/ BB-HCM481/ BB-HCM511/ BB-HCM515/ BB-HCM515/ BB-HCM527/ BB-HCM547/ BB-HCM580/ BB-HCM581/ BB-HCM715/ BB-HCM735/ KX-HCM280/ KX-HCM180/ BL-C1/ BL-C10/ BL-C11/ BL-C111/ BL-C20/ BL-C30(K1)/ BL-C31	●	●
Panasonic i-Pro	NF282/ NF284/ NF302/ NM100/ NP1000/ NP1004/ NP240/ NP244/ NP304(V)/ NP472/ NP502/ NS202(A)/ NS324/ NS950/ NS954/ NW484(S)/ NW960/ NW964	●	●
SANYO	VCC-400N/ VCC-P450/ VCC-P470/ VCC-PT490/ VCC-PT500/ VCC-9600/ VCC-9800/ N6695/VCC-HD4000	●	●
SONY	SNC-CS10/ SNC-CS11/ SNC-CS20/ SNC-CS50/ SNC-CM120/ SNC-DF40/ SNC-DF50/ SNC-DF70/ SNC-DF80/ SNC-DF85/ SNC-DS10/ SNC-D580/ SNC-DM110/ SNC-DM160/ SNC-P1/ SNC-P5/ SNC-RX530/ SNC-RX550/ SNC-RX570/ SNC-RZ25/ SNC-RZ30/ SNC-RZ50/ SNC-Z20/ SNT V704	●	●
TOA	N-CC2561/ N-VT-2010/ N-CC-2360	●	●
TOSHIBA	CIB110-D/ CIB210-D/ IK-WB12/ IK-WB21	●	●
TRENDnet	TV-IP212/ TV-IP212W/ TV-IP312/ TV-IP312W/ TV-IP410/ TV-IP410W/ TV-IP422/ TV-IP422W	●	●
VIVOTEK	IP3111/ IP3121/ IP3112/ IP3122/ IP3132/ IP3135/ IP3137/ PT3112/ PT3122/ PT3117/ PT3127/ FD6111W/ FD6121W/ FD6112W/ FD6122W/ IP6112/ IP6122/ IP6117/ IP6127/ PZ6112/ PZ6122/ PZ6114/ PZ6124/ SD6112W/ FD7130/ FD7131/ FD7132/ FD7141/ FD7160/ IP7130/ IP7131/ IP7132/ IP7133/ IP7134/ IP7135/ IP7137/ IP7138/ IP7139/ IP7142/ IP7151/ IP7152/ IP7153/ IP7154/ IP7161/ IP7251/ IP7330/ IZ7151/ PZ71X1/ PZ71X2/ PZ7131/ PZ7132/ PZ7135/ PZ7137/ PZ7151/ PZ7152/ SD6122W/ SD7151/ SD73X3/ IP8161/ VS3100P/ VS3102/ VS7100	●	●
Y-CAM	Y-Cam White/ Y-Cam Black	●	●

\*For the latest information of the supported cameras, please visit QNAP Security website: [http://www.qnapsecurity.com/pro\\_compatibility\\_camera.asp](http://www.qnapsecurity.com/pro_compatibility_camera.asp)

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