VioStor NVR Network Video Recorder
VS-2104L
Network Surveillance System for SOHO and Home

VS-2104L

Hardware Spec.

CPU	Marvell 1.6GHz
DRAM	512MB DDRIII RAM
Flash Memory	512MB
Hard Disk Drive	2 x 3.5" SATA I/II hard disk drive (HDD) NOTE: 1. The system is shipped without hard disk drives. 2. For the HDD compatibility list, please visithttp://www.qnap.com/pro_compatibility.asp
LAN Port	1 x Gigabit RJ-45 Ethernet port
LED Indicators	USB, Status, HDD1, HDD2, LAN, Power
USB	1 x USB 2.0 port (front: 1) 2 x USB 3.0 port (back: 2) Support USB mouse, USB keyboard, USB sound card, and USB UPS etc.
Buttons	System: Power button, one-touch-auto-video-backup button, reset button
Alarm Buzzer	System warning
Form Factor	Portable
Dimensions	165.5 (H) x 85 (W) x 218.4 (D) mm 6.52 (H) x 3.35 (W) x 8.60 (D) inch
Weight	Net weight: 0.91 kg/ 2.01 lb Gross weight: 1.9 kg/ 4.19 lb
Power Consumption (W)	In operation: 13W (with 2 x 500GB HDD installed)
Temperature	0-40°C
Humidity	0-95% R.H.
Power	External Power Adapter, 60W, 100-240V

Secure Design	K-lock security slot for theft prevention
Fan	1 x quiet cooling fan (6cm, 12V DC)

Design and specifications are subject to change without notice.

Software Spec.

Recording	
Supported Camera Models	Please visit http://www.qnap.com/NVR/CompatibilityX01.html
Number of Channels Supported (Recording)	Up to 4
Video Compression	H.264/ MPEG-4/ M-JPEG (depending on the camera models)
Video Setting	Video compression, resolution, quality, frame rate, audio
Recording Mode	●Continuous/ schedule/ manual recording ●Alarm recording by multiple events ●Smart recording (depending on the camera models) ●Auto snapshot
Buffer Storage for Alarm Images (before and after events)	●Pre-recording: Up to 300 sec ●Post-recording: Up to 300 sec
Recording Performance	Up to 30 fps at HD/megapixel for each channel * Real performance may vary in different environment
Network Throughput	40 Mbps
File Format	AVI (QNAP codec is required for playback)
Recording Enhancement	Real-time digital watermarking
Application	
Fisheye Dewarping	Support the specific fisheye IP Cameras on remote monitoring/playback * Please visit http://www.qnap.com/NVR/CompatibilityX01.html to get the compatibility list
360° Panomorph Video	Support the specific IP camera with panomorph lens on remote monitoring/playback.
Remote Monitoring (Windows)	
Display Mode	1, 4, 6, 8, 9, 10, 12, 16, 20, 25, 36, 42, 64-channel display, sequential mode

Dual-display Mode	Up to 2 monitors
Multi-server Monitoring	Up to 128-channel monitoring from multiple VioStor NVR servers (browser-based)
Monitoring Enhancement	Full screen display, video snapshot, manual recording, event notification, PTZ control, digital zoom
E-map	Uploading the digital maps and indicating the locations of the IP cameras and GPI devices of a monitoring location or region
Remote Playback (Windows)	
Display Mode	1, 4, 6, 8, 9, 10, 12 or 16-channel display
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 Mode	Play, pause, stop, reverse play, next/ previous frame, next/ previous video file, different speed control
Playback Enhancement	Full screen display, video snapshot, digital zoom, digital watermarking
Export	Convert multiple recording files to client PC instantly
Download	Download recordings via the web
QNAP Surveillance Client for Mac	
Display Mode	1, 4, 6, 8, 9, 10, 12, or 16-channel display mode, sequential display mode
Monitoring Enhancement	Full screen display, event notification, PTZ control, digital zoom
Playback	Single view playback
Search Mode for Playback	By date & time
Playback Control	Play, pause, stop, reverse play, next/ previous video file, different speed control
Playback Enhancement	Full screen display, digital zoom
Export	Convert multiple recording files to Mac device instantly
Advanced Event Management	
Events	Motion detection, alarm input, connection failure, recording failure, and user-defined event
Actions	Video recording, email alert, SMS alert, buzzer, PTZ camera control, alarm output, and user-defined action
Backup	
Schedule Remote Replication	Schedule video data backup to a NAS on the local network

Security Control	
Authority Management	Different user groups and rights can be assigned to different users
Host Access Control	Specify the connections to be allowed and denied to access the VioStor NVR
Auto Logoff	Automatic user logoff from idling configuration pages
Event Logs	Detailed event logs
On-line Users List	Record of the users currently logged on and previously logged on to the VioStor NVR
Digital Watermarking	Verify whether or not the videos and snapshots are original

Reliability	
Operation System	Linux-embedded system, free from PC crash and virus attack
Disk Management	●Single disk, RAID 0, RAID 1 and JBOD/Linear ●HDD S.M.A.R.T., bad blocks scan
UPS	Please visit http://www.qnapsecurity.com/pro_compatibility_ups.asp

Network Services	
Support	HTTP, HTTPS, TCP/IP, SMTP, DHCP, Static IP, DNS, DDNS, FTP, NTP, UPnP
Services	FTP, SMB/CIFS

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

Remote Surveillance	
Client PC	Google Chrome, Internet Explorer, Mozilla Firefox (Browser-based) QNAP Surveillance Client for Windows
Mac	QNAP Surveillance Client for Mac
Android Tablet, phone	VMobile
iPad, iPhone, iPod Touch	VMobile
Windows Mobile (6.1, 6.5) Device	VMobile

Client PC Requirement (Suggested system requirement for better video performance)	
CPU	●M-JPEG format (up to 8 channels):

Pentium 4 CPU 2.8 GHz or above

●MPEG-4/ H.264/ MxPEG format (up to 8 channels):

Dual core CPU 2.4 GHz or above

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

Memory	2 GB or above
Operation System	Microsoft Windows Vista/ 7/ 8 or Mac OS X 10.7.x, 10.8.x
Web Browser	Microsoft Internet Explorer 8/9/10 (Windows PC, desktop mode, 32-bit)
	Google Chrome 30.0.1599.69 m (Windows PC)
	Mozilla Firefox 24.0 (Windows PC)
Network Interface	10/100/1000 Mbps
Display Resolution	1280 x 720 pixels or higher for better user experience

Utility Software	
QNAP Finder	The client application to discovery and quick setup of the VioStor NVR
QNAP Surveillance Client For Windows	The client application used to remotely access QNAP NVR servers for performing video monitoring and playback functions on client PC.
QNAP Surveillance Client For Mac	The client application used to remotely access QNAP NVR servers for performing video monitoring and playback functions on Mac.
QNAP Codec	The video codec to play the recording files on Windows Media Player.
VMobile	The Mobile App to monitor the network cameras on the VioStor NVR by the Android phone, Android tablet, iPhone, iPad, iPod touch, and Windows mobile (6.1, 6.5) device.

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