

## VS-12164U-RP Pro+

### Hardware Spec.

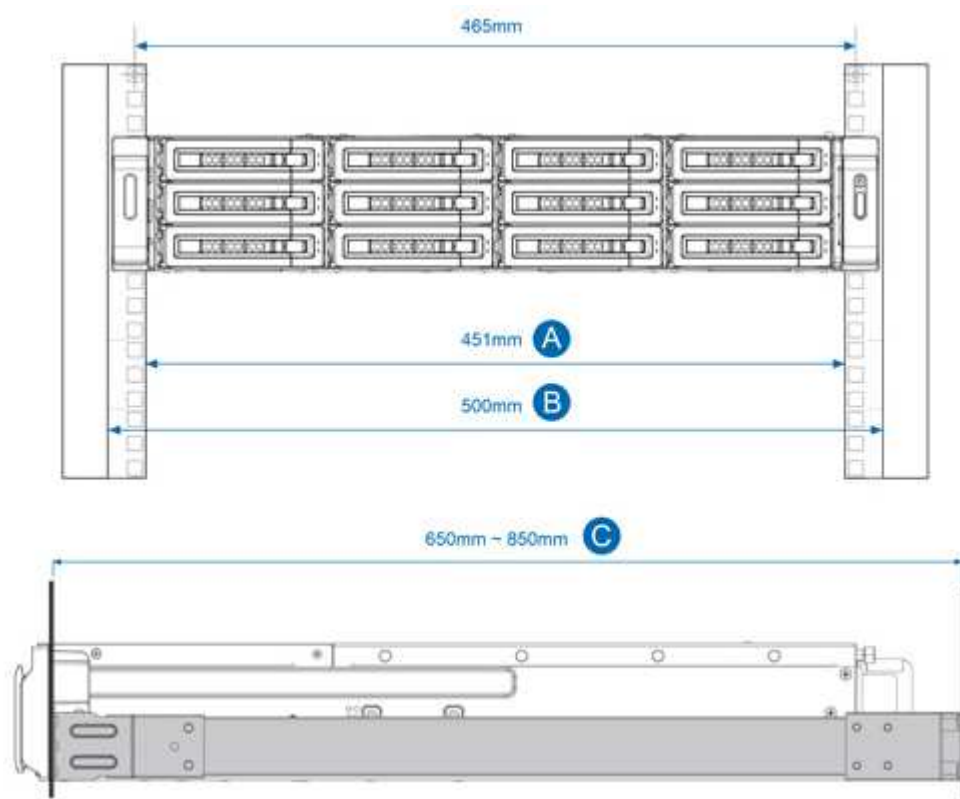
<b>Processor</b>	Quad Core Intel® Core™ i5 3.7GHz Processor
<b>DRAM</b>	8GB DDR3 RAM
<b>HDD Capacity</b>	12 x 3.5" SATA 6Gb/s, SATA 3Gb/s hard drive <b>NOTE:</b>  <ol style="list-style-type: none"> <li>1. The system is shipped without HDD.</li> <li>2. For the HDD compatibility list, please visit <a href="#">here</a></li> </ol>
<b>HDD Tray</b>	12 x hot-swappable and lockable tray
<b>LAN Port</b>	4 x Gigabit RJ-45 Ethernet port
<b>LED Indicators</b>	Status, 10 GbE, LAN, eSATA, hard drives *10 GbE (reserved), eSATA (reserved)
<b>USB</b>	2 x USB 3.0 port (rear) 4 x USB 2.0 port (rear) Support USB pen drive, USB hub, and USB UPS etc.
<b>Buttons</b>	System: Power button, reset button
<b>Alarm Buzzer</b>	System warning
<b>Form Factor</b>	2U, Rackmount
<b>Dimensions</b>	88(H) x 439(W) x 520(D) mm 3.46(H) x 17.28(W) x 20.47(D) inch
<b>Weight</b>	Net weight: 15.88 kg (35.01 lb) Gross weight: 25.60 kg (56.44 lb)
<b>Operation Environment</b>	Temperature 0~40°C / 32~104°F Humidity 0~90% R.H.
<b>Power Supply</b>	Input: 100-240V AC, 50/60Hz, Output: 600W

<b>Power Consumption</b>	167W Write/Read (with 12 x 2TB HDD installed)
<b>Expansion Slot</b>	2 (reserved for network and storage expansion)
<b>Video Output</b>	1x HDMI 1x VGA
<b>Fan</b>	3 x 6 cm smart cooling fan
<b>Certification</b>	CE, FCC, VCCI, BSMI, LVD

**Remark:**

The VS-12100U-RP Pro+ rack mount series comply with ANSI/EIA-RS-310-D rack mounting standards. Before purchasing the server racks for these models, please make sure the server racks conform to the following criteria:

1. Rack size
  - A. Mounting post width:  $\geq 451\text{mm}$
  - B. Panel width:  $\geq 500\text{mm}$
  - C. Mounting post depth:  $650\text{mm}\sim 850\text{mm}$



2. The rack kits for the VS-12100U-RP Pro rack mount series are only compatible with square-hole server racks.



## Software Spec.

### Recording

Supported Camera Models Please visit <http://www.qnap.com/NVR/CompatibilityX01.html>

Supported Models

Number of Channels Up to 64

Supported Channels

(Recording)

Video Compression H.264/ MPEG-4/ M-JPEG/ MxPEG (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
- 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 1080P, 720P, VGA for each channel

\* Real performance may vary in different environment

Megapixel Recording Supports megapixel cameras (up to 10-megapixel)

Network Throughput 450 Mbps

File Format AVI (QNAP codec is required for playback)

Recording Real-time digital watermarking

## Enhancement

Application	
Fisheye	Support the specific fisheye IP Cameras on remote monitoring/playback and local display interface
Dewarping	* Please visit <a href="http://www.qnap.com/NVR/CompatibilityX01.html">http://www.qnap.com/NVR/CompatibilityX01.html</a> to get the compatibility list
360° Panomorph Video	Support the specific IP camera with panomorph lens on remote monitoring/playback and local display interface

Local Display	
Display Mode	1, 4, 6, 8, 9, 10, 12 or 16-channel display mode, sequential display mode
Hardware Decode	Full HD 1080P 300FPS *The NVR will auto detect H.264 stream format and activate hardware decoder for 12 CH live view.
Local Monitoring Enhancement	Full screen display, event notification, PTZ control, digital zoom
Local Playback	Single view playback from local NVR server
Search Mode for Local Playback	By date & time
Playback Control	Play, pause, stop, reverse play, next/ previous video file, different speed control
Local Playback Enhancement	Full screen display, digital zoom
Export	Convert multiple recording files to the external USB device instantly
System Administration	Quick configuration, administration password, network settings, time settings, disk volume configuration, camera settings

Remote Monitoring (Windows)	
Display Mode	1, 4, 6, 8, 9, 10, 12, 16, 20, 25, 36,42 or 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	Full screen display, video snapshot, manual recording, event notification,

Enhancement	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, RAID 5, RAID 5+ hot spare, RAID 6, RAID 6+ hot spare, and JBOD/Linear
- Online RAID Capacity Expansion, Online RAID Level Migration
- HDD S.M.A.R.T., bad blocks scan

UPS APC/ CyberPower/ Epson/ MGE/ YEC (USB UPS)

#### Network Services

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

Multiple Gigabit LAN Failover/ load-balancing/ multi-IP setting

Services Web File Manager, FTP, SMB/CIFS

#### Language Support

Language Czech/ Danish/ Dutch/ English/ 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	<ul style="list-style-type: none"><li>· M-JPEG format (up to 64 channels ): Quad core CPU 2.33GHz or above</li><li>· MPEG-4/ H.264/ MxPEG format (up to 64 channels ): Core i7 CPU 2.8GHz or above</li></ul> <p>** For higher surveillance performance, please select more advanced PC models.</p>
Memory	4 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 24.0.1312.57 m (Windows PC) Mozilla Firefox 18.0.2 (Windows PC)
Network Interface	10/100/1000 Mbps
Display Resolution	1280 x 800 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.