








Hardware Specifications



	TVS-471		TVS-671			TVS-871			
NAS	TVS-471-PT-4G	TVS-471-i3-4G	TVS-671-PT-4G	TVS-671-i3-4G	TVS-671-i5-8G	TVS-871-PT-4G	TVS-871-i3-4G	TVS-871-i5-8G	TVS-871-i7-16G
CPU	Intel G3250 3.2 GHz dual-core processor, or above	Intel Core i3-4150 3.5 GHz dual-core processor, or above	Intel G3250 3.2 GHz dual-core processor, or above	Intel Core i3-4150 3.5 GHz dual-core processor, or above	Intel Core i5-4590S 3.0 GHz quad-core processor, or above (up to 3.7 GHz)	Intel G3250 3.2 GHz dual-core processor, or above	Intel Core i3-4150 3.5 GHz dual-core processor, or above	Intel Core i5-4590S 3.0 GHz quad-core processor, or above (up to 3.7 GHz)	Intel Core i7-4790S 3.2 GHz quad-core processor, or above (up to 4.0 GHz)
Memory	4GB DDR3 (Max. 16GB)	4GB DDR3 (Max. 16GB)	4GB DDR3 (Max. 16GB)	4GB DDR3 (Max. 16GB)	8GB DDR3 (Max. 16GB)	4GB DDR3 (Max. 16GB)	4GB DDR3 (Max. 16GB)	8GB DDR3 (Max. 16GB)	16GB DDR3
USB 2.0/3.0	2/3								
Hard Drive	4 x 3.5-inch SATA 6Gbps, SATA 3Gbps hard drive or 2.5-inch SATA, SSD hard drive		6 x 3.5-inch SATA 6Gbps, SATA 3Gbps hard drive or 2.5-inch SATA, SSD hard drive			8 x 3.5-inch SATA 6Gbps, SATA 3Gbps hard drive or 2.5-inch SATA, SSD hard drive			
Maximum Raw Capacity	32 TB		48 TB			64 TB			
Gigabit Ethernet port	4 (Max. 8)		4 (Max. 8)			4 (Max. 8)			
10GbE Ethernet port	Optional								
PCIe Slot	2 (1* PCIe Gen.3 x8, 1* PCIe Gen.2 x4)		2 (1* PCIe Gen.3 x8, 1* PCIe Gen.2 x4)			2 (1* PCIe Gen.3 x8, 1* PCIe Gen.2 x4)			
Dimensions (H)x(W)x(D)	177 x 180 x 235 mm 6.97 x 7.09 x 9.25 inch		175 x 257 x 235 mm 6.89 x 10.12 x 9.25 inch			185.2 x 298.2 x 235.4 mm 7.29 x 11.74 x 9.27 inch			
Weight (Net / Gross)	4.56 kg (10.05 lbs) / 5.7 kg (12.57 lbs)		6.18 kg (13.62 lbs) / 6.9 kg (15.21 lbs)			7.83 kg (17.26 lbs) / 8.9 kg (19.62 lbs)			
Power Supply	Input: 100-240V AC, 50/60Hz Output: 250W	Input: 100-240V AC, 50/60Hz Output: 250W	Input: 100-240V AC, 50/60Hz Output: 250W	Input: 100-240V AC, 50/60Hz Output: 250W	Input: 100-240V AC, 50/60Hz Output: 250W	Input: 100-240V AC, 50/60Hz Output: 350W	Input: 100-240V AC, 50/60Hz Output: 350W	Input: 100-240V AC, 50/60Hz Output: 350W	Input: 100-240V AC, 50/60Hz Output: 350W
Fan	Quiet cooling fan (9 cm, 12V DC) x 1		Quiet cooling fan (9 cm, 12V DC) x 2			Quiet cooling fan (12 cm, 12V DC) x 2			
LCD Screen	Yes								
Sound Level	17.13 dB		21 dB			23.1 dB			
Power Consumption (W)	Sleep mode: 28.39 In Operations: 49.38	Sleep mode: 28.19 In Operations: 50.52	Sleep mode: 36.32 In Operations: 62.25	Sleep mode: 38.72 In Operations: 66.30	Sleep mode: 36.47 In Operations: 62.18	Sleep mode: 45.51 In Operations: 82.59	Sleep mode: 45.43 In Operations: 82.06	Sleep mode: 45.48 In Operations: 83.81	Sleep mode: 45.37 In Operations: 82.51

* Design and specifications are subject to change without notice.

Accessories

Category	Order P/N	Description
Memory	 RAM-2GDR3-SO-1600	2GB DDR3-1600 RAM Module SO-DIMM
	 RAM-4GDR3-SO-1600	4GB DDR3-1600 RAM Module SO-DIMM
	 RAM-8GDR3-SO-1600	8GB DDR3-1600 RAM Module SO-DIMM
LAN Card	 LAN-10G2T-D	QNAP Dual-port 10 Gigabit Network Expansion Card for Tower Model (10GBASE-T interface)
	 LAN-10G1T-D	QNAP single-port 10 Gigabit Network Expansion Card for Tower Model (10GBASE-T interface)
	 LAN-10G1SR	QNAP single-port 10 Gigabit Network Expansion Card for Tower Model (10G SFP+ interface)
	 LAN-1G2T-D	QNAP Dual-port Gigabit Network Expansion Card for Turbo vNAS Tower Model

Software Specifications

Operating System

- QTS 4.1.2 (embedded Linux)

Supported Clients

- Windows XP, Vista, Windows 7 (32/64-bit), Windows 8 (32/64-bit), Windows Server 2003/2008 R2/2012, Apple Mac OS X, Linux & UNIX

Supported Browsers

- Google Chrome
- Microsoft Internet Explorer 10+
- Mozilla Firefox 8+
- Apple Safari

Multilingual Support

- Chinese (Traditional & Simplified), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazil), Romanian, Russian, Spanish, Swedish, Thai, Turkish

File System

- Internal Hard Drive: EXT4
- External Hard Drive: EXT3, EXT4, NTFS, FAT32, HFS+

Networking

- TCP/IP (IPv4 & IPv6: Dual Stack)
- Quad Gigabit NICs with jumbo frame (failover, multi-IP settings, port trunking/NIC teaming)
- Service binding based on network interfaces
- Proxy server (Squid available in App Center)
- Proxy client
- DHCP client, DHCP server
- Protocols: CIFS/SMB, AFP (v3.3), NFS(v3), FTP, FTPS, SFTP, TFTP, HTTP(S), Telnet, SSH, iSCSI, SNMP, SMTP, and SMSC
- UPnP & Bonjour Discovery
- USB Wi-Fi Adapter Support

Security

- Network access protection with auto-blocking: SSH, Telnet, HTTP(S), FTP, CIFS/SMB, AFP
- CIFS host access control for shared folders
- FIPS 140-2 validated AES 256-bit volume-based data encryption*
- AES 256-bit external drive encryption*
- Importable SSL certificates
- Instant alert via e-mail, SMS, beep, and LCD panel
- * SomeThe data encryption functions may not available in accordance with the legislative restrictions of some countries.

Storage Management

- QNAP flexible Volume/LUN with thin provisioning and space reclaim
- RAID 0,1, 5, 6, 10, + hot spare
- Supports storage pool
- Online volume expansion
- Online storage pool expansion
- Online RAID capacity expansion and online RAID level migration
- SMART data migration
- Storage expansion via QNAP REXP-1000 Pro expansion unit
- Bad block scan and hard drive S.M.A.R.T.
- Bad block recovery
- RAID recovery
- Bitmap support

Power Management

- Wake on LAN
- Internal hard drive standby mode
- Scheduled power on/off
- Automatic power on after power recovery
- USB and network UPS support with SNMP management
- System sleep mode (S3)

Access Right Management

- Batch users creation
- Import/export users
- User quota management
- Local user access control for CIFS, AFP, FTP, and WebDAV
- Application access control for Photo Station, Music Station, Video Station, and Multimedia Station
- Subfolder permissions support for CIFS/SMB, AFP, FTP, and File Station

myQNAPcloud Service

- Private cloud storage and sharing with myQNAPcloud id (QID)
- Free host name registration (DDNS)
- Auto router (via UPnP) configuration

- Web-based file manager with HTTPS 2048-bit encryption
- Cloudlink for remote access without complicated router setup
- myQNAPcloud connect for easy VPN connection (Windows VPN utility)

Qsync

- Syncs files among multiple devices with SSL support
- Selective synchronization for syncing specific folders only
- Share team folder as a file center for team collaboration (Maximum sync tasks: 32)
- Shares files by links via email-e-mail
- Policy settings for conflicted files and file type filter support
- Version control: up to 64 versions.
- Incremental synchronization for HDD space saving
- Supports Windows & Mac OS

Web Administration

- Multi-window, multi-tasking based system management
- Movable Icons and personalized desktop
- Smart toolbar and dashboard for neat system status display on system status
- Smart fan Control
- Dynamic DNS (DDNS)
- SNMP (v2 & v3)
- Resource monitor
- Network recycle bin for file deletion via CIFS/SMB, AFP, and File Station
 - Automatic Cleanup
 - File Type Filter
- Comprehensive logs (events & connection)
- Syslog client/server
- System settings backup and restore
- Restore to factory default
- Mobile app: Qmanager for remote system monitoring & management

File Server

- File Sharing across Windows, Mac, and Linux/UNIX
- Windows ACL
- Advanced folder permission for CIFS/SMB, AFP, FTP
- Shared folder aggregation (CIFS/SMB)

FTP Server

- FTP over SSL/TLS (Explicit)
- FXP support
- Passive ftp port range control

File Station

- Supports ISO Mounting (Up to 256 ISO files)
- Supports thumbnail display of multimedia files
- Supported sharing download links and upload links
- Drag-n-drop Files via Google Chrome and Mozilla Firefox Browsers
- Photo, music, and video preview and playback with hardware-accelerated transcoding
- File Compression (ZIP or 7z)
- Creation of and sending download links for sharing public files with expiration time and password protection
- Support for displaying subtitles display (*.SRT, UTF-8 format)
 - Video seeking support for video playback during on-the-fly transcoding
 - Support slideshow playback in media viewer
- Mobile App: Qfile for file browsing and management)

Backup Station

- Remote replication server (over rsync)
- Real-time remote replication (RTRR) to another QNAP NAS or FTP server
- Works as both RTRR server & client with bandwidth control
- Real-time & scheduled backup
- Encryption, compression, file filter, and transfer rate limitation
- Encrypted replication between QNAP NAS servers
- Desktop backup with QNAP NetBak Replicator for Windows
- Apple Time Machine backup support
- Data backup to multiple external storage devices
- Third party backup software support: Veeam backup & replication, Acronis True Image, Arcserve backup, EMC retrospect, Symantec Backup Exec, etc.

Cloud Storage Backup

- Amazon S3

- Amazon Glacier
- WebDAV-based cloud storage
- Microsoft Azure
- Open Stack
- Google Drive
- Dropbox
- ElephantDrive
- Symform

Print Server

- Max. number of printers: 3
- Support for Internet Printing Protocol
- Print job display and management
- IP-based and domain name-based privilege control

Virtualization Station

- Support Virtual Machine (VM) creation to run an operating system such as Windows, Linux, Unix and Android
- Support importing VM from the other virtual platform, e.g. VirtualBox, VMware Workstation
- Support exporting VM with *.ovf, *.qvm formats
- VM clone
- VM snapshot
- HTML5-based shared remote console
- User-based permission setting
- Support USB device pass-through
- Support VM console display via HDMI

HD (HybridDesk) Station 2.0

- Playbacks videos, music, photos on your TV tv with XBMC xbmc via HDMI hdmi output
- Watch various online contents such as YouTube, Flickr, Picasa, Shoutcast, and more, etc.
- Web browser (Chrome, Firefox)
- Supports USB U.S. keyboard and mouse
- Supports QNAP Qremote app and the official XBMC remote app
 - 4 new desktop themes
 - Supports user login permissions

Signage Station

- Supports dynamic content including videos, images, music, and text messages
- Supports multi-users collaboration
- Supports searching via keywords,
- Supports sharing via email and social networks sharing
- Supports design software - iArtist Lite
- Supports account authority management
- Supports various web browsers for playback (Chrome, Firefox, IE, Safari)
- Supports most-viewed, latest-released and different categories content list

iSCSI (IP SAN)

- iSCSI target with multi-LUNs per target (Up to 256 targets/LUNs combined)
- Support for LUN mapping & masking
- Online LUN capacity expansion
- Support for SPC-3 persistent reservation
- Support for MPIO & MC/S
- iSCSI LUN backup, one-time snapshot, and restoration
- iSCSI connection and management by QNAP Windows Qfinder
- Virtual disk drive (via iSCSI initiator)
- Stack chaining master
- Max No. of virtual disk drives: 8

Server Virtualization & Clustering

- Server Virtualization & Clustering
- VMware vSphere (ESXi 5.x)
- VMware VAAI for iSCSI and VAAI for NAS
- vSphere Plug-in
- Citrix XenServer (6.2)
- Windows Server 2012 R2 Hyper-V
- Supports Microsoft ODX
- QNAP SMI-S provider for Microsoft SCVMM

Surveillance Station

- Supports over 2,100 IP ip cameras
- Includes 4 free camera licenses, up to 72 camera channels via additional license purchase
- Instant playback to check the recent events
- Online editing to change edit cameras when in live view
- Visual aid by using e-maps
- Playback and speed control by shuttle bar
- Video preview using on playback timeline
- Intelligent Vvideo Analytics (IVAiva) for advanced video search
- Surveillance client for Mac
- Mobile surveillance app: Vmobile (iOS and

Android)

- Mobile recording app: Vcam (iOS and Android)

Notes Station

- Graphical web-based editor for taking notes
- Integrate with NAS file system: insert attachment or image from NAS file system
- Event calendar and to-do list
- Image editor: a easy way to highlight the focus in your image
- Support note publishing with a single link
- Support key word search
- Provide Chrome Extension: Notes Station Clipper
- Clip web page content to your note
- Mobile app: Qnotes

VPN Server

- Secure remote access: PPTP & OpenVPN VPN services
- Max number of clients: 30

VPN Client

- Supported VPN protocols: PPTP & OpenVPN services
- PPTP Authentication: PAP, CHAP, MS-CHAP, MS-CHAPv2
- PPTP Encryption: None, AES 40/128 bit, AES 256 bit
- OpenVPN Encryption: None, AES 40/128 bit, AES 256 bit
- Transmission package monitor
- OpenVPN port control
- OpenVPN link compression

Domain Authentication Integration

- Microsoft Active Directory (AD)
- Domain controller
- LDAP server, LDAP client
- Domain users login via CIFS/SMB, AFP, FTP, and File Station

AirPlay & Chromecast

- Streams videos, photos and music from the NAS to Apple TV via Qfile or QAirPlay&Chromecast's web-based controller
- Streams videos, photos and music from the NAS to TV with a Chromecast dongle via Qfile, Qvideo or QAirPlay&Chromecast's web-based controller

App Center

- More than 100 official and community software add-ons (ex: Dropbox, Google Drive Sync, McAfee, WordPress, HappyGet II, etc.)
- Photo Station
- Music Station
- Video Station
- iTunes Server
- DLNA Server
- AirPlay: Streams videos, photos and music from NAS to Apple TV via Qfile or QAirPlay's web-based controller
- Digital TV Station
- Download Station
- HD Station + XBMC media player + Google Chrome

Mobile Apps

- Qfile: iOS, Android, Windows Phone 8+
- Qfile HD: iPad version
- Qmanager: iOS, Android
- Qmusic: iOS, Android
- Qremote: iOS, Android
- Qget: Android
- Vmobile: iOS, iPad, Android

PC Utilities

- Qfinder: Windows, Mac, Linux
- myQNAPcloud Connect: Windows
- Qsync: Windows, Mac
- NetBak Replicator: Windows
- QGet: Windows, Mac, Linux
- vSphere Client plug-in: Windows
- Qsnap: Windows

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