

# All-in-One Network Attached Storage for Home & SOHO Users

- Featuring QTS 4.0 Turbo NAS System
- Intuitive GUI with Multi-window, Multi-tasking Design
- Cross Platform Data Storage, Backup and Sharing Center
- Revolutionary Photo, Music, and Home Video Center
- Personal and Private Cloud Storage
- Free and Large Storage Capacity for Dropbox-style Data Sync
- Over 90 Install-on-demand Applications via App Center
- Energy-efficient & Eco-friendly



## Simple yet Powerful NAS

The new QNAP Turbo NAS, running on the industry leading QTS 4.0 operating system, provides the best-in-class network storage with rich applications for performance demanding home and SOHO users.



# QNAP QTS 4.0

Intuitive, innovative operating system featuring synchronization capabilities, multi-window and easy management.

## Innovative Desktop

The QTS 4.0's intelligent desktop offers an intuitive, sleek, and easy-to-follow graphic user interface, simplifying the whole Turbo NAS experience.

### Multi-window, multi-tasking

- The QTS 4.0 allows you to open multiple application windows and run multiple tasks simultaneously.
- Application windows can be minimized to the Toolbar which allows you to see an overview of the opened applications and switch among the running applications.
- Multi-window capabilities dramatically increase work efficiency and file operations.

## Personalize desktop wallpaper

Choose your favorite wallpaper from the default artwork or upload your own photos.



## Intelligent Desktop

### Main menu

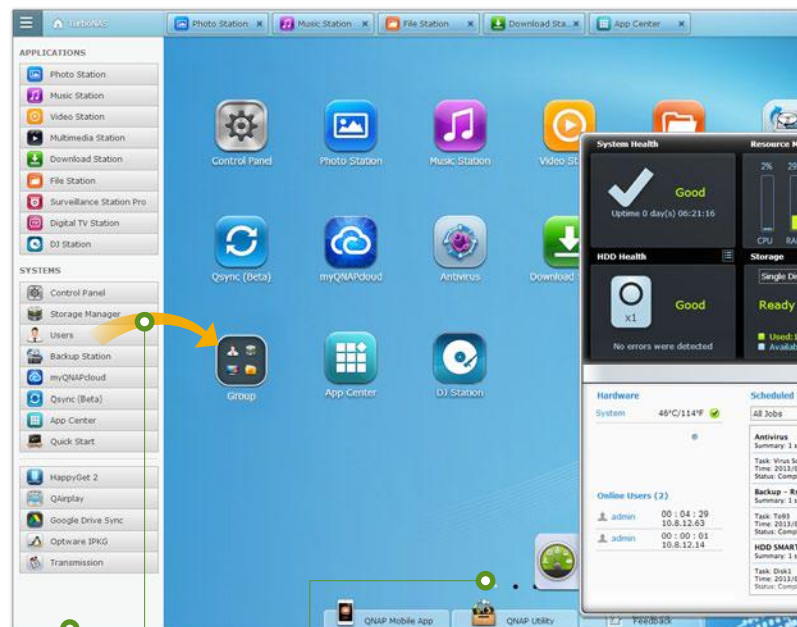
All your applications, system preferences, and additional apps installed from the App Center are neatly presented for you to find your desired app quickly. Drag and drop frequently used icons to the desktop as shortcuts for quick access.

### Folders

Drag the icons from the Main Menu or the Control Panel to the desktop to create a shortcut. Drag one of the icons onto another to create a folder shortcut which reduces clutter on your QTS desktop.

### Multiple desktops

This extended desktop workspace is designed specifically to improve your productivity. You can separate the apps on different desktops according to their nature or genre and switch between the desktops freely. For example, you can group frequently used icons on the first desktop, and place favorite music folders on the second or third.



# Store, Back up and Share Data

The QNAP Turbo NAS works as a centralized storage to securely save and back up all files and digital contents. Sharing your files, or digital contents with friends and family or data access from anywhere at any time is now much easier. The QNAP NAS offers a large storage capacity with quick data access across Windows, Mac, and Linux platforms. It also provides advanced RAID configurations and management to reduce the risk of data loss.



## Smart toolbar

- External device**  
Access the connected devices, such as other storage devices and printers, and eject the devices safely with only one click.
- Quick search**  
Quickly search the system settings and QTS Help content using relevant keywords as search results are displayed instantaneously while you type.
- Event notifications**  
Displays constant updates of system information such as system warnings and other error messages.
- Online resources**  
A quick view of available resources offered to help you access knowledge and support whenever needed, such as Quick Start, QTS Help, Tutorials, QNAP Wiki, QNAP Forum, Customer Service, and Feedback.
- Background tasks**  
Displays all the active tasks and scheduled jobs performed in the background.

## Smart dashboard

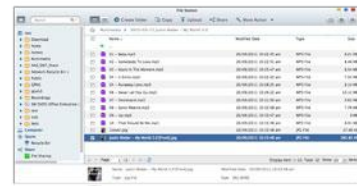
In one click the smart dashboard presents all important system information in a single panel: including system health, hard drives (HDD) health, resource monitoring, hardware information, storage status, system updates and schedules. Drag any status to the desktop for constant monitoring.

The screenshot shows the QNAP QTS dashboard. It features a 'Smart toolbar' at the top with icons for external devices, search, and notifications. Below the toolbar, there are several panels: a 'Monitor' panel showing system health and resource usage, a 'Storage' panel showing disk health and capacity, and a 'Tasks' panel showing background tasks and their status. The dashboard is designed to provide a comprehensive overview of the system's performance and status.



## File Station

Upload, download and manage files anywhere with a web browser. File extraction, folder creation, smart search files or folders are functioned over the Internet. Preview your photos and videos through any web browsers too!



## Complete Backup Solution

The Turbo NAS performs as an ideal backup center for valuable data. External storage devices, remote servers and third-party cloud backup services are also supported for extra data backup from the NAS.

### Client backup

The QNAP Turbo NAS supports NetBak Replicator, Time Machine and more third party backup software.

### External Backup

Every QNAP Turbo NAS comes with a "one touch data copy button" for direct data backup between the Turbo NAS and external USB/eSATA storage devices.

### Remote Backup

- Back up the Turbo NAS data to another remote Turbo NAS or an FTP server on a real-time basis via QNAP's Real-time Remote Replication (RTRR) service.
- Back up the Turbo NAS data to a standard rsync server on scheduled basis via the rsync protocol.

### Cloud Backup

- Real-time data backup from the Turbo NAS to online cloud storage services: Amazon S3, ElephantDrive, Symform, Dropbox, or Google Drive.



## FTP Server

Establish an FTP server with the Turbo NAS and share large files conveniently with family and friends.

# Data Security

Having a sound centralized storage to detect and guard personal data is crucial. Rest easy with the QNAP NAS keeping data protected from data corruption and unauthorized users. Each Turbo NAS comes with the latest antivirus protection and IP-based blocking to make your NAS a safe place for your data.



## Smart Detection

The integrated free antivirus solution for the Turbo NAS ensures a NAS environment clean from viruses. With smart antivirus detection, multiple scan tasks with folders of your choice, scheduled scanning and email notification are all included for easy antivirus management.



## Network Access Protection

With the IP-based blocking, you can effectively set up a list to screen unauthorized users from accessing the Turbo NAS. Once an IP address is denied, the user will be denied access to the Turbo NAS regardless of the connection ports it uses.

# Personal and Private Cloud Storage

From mobile phones to your personal computers, your files are always within reach.



## myQNAPcloud service

Create your own personal cloud with the free myQNAPcloud service. The Turbo NAS creates your own unique URL and in a few easy steps, you will be able to access your files on any web browser.



## VPN

The VPN service allows you to access the Turbo NAS on the same local network from the Internet and easily manage the files by drag-and-drop through the file browser.



## CloudLink

CloudLink helps you pass through the complicated network environment and connect to the Turbo NAS from a remote PC and easily access the data from anywhere without complicated settings.



## myQNAPcloud Connect

myQNAPcloud Connect is a Windows VPN connection utility. It can establish a secure VPN connection with the remote NAS over the Internet and enable you to access the NAS as if it were in the network. You can also mount the folders of the remote NAS as the local network drive, allowing you to access other NAS located at the same network.



# Free and Large Storage Capacity for Dropbox-style Data Sync

With the Qsync utility, you can easily synchronize files across different devices and share file across groups and communities. You can share photos and music with friends easier, and synchronize files at work flexibly.



## Qsync

Your Turbo NAS becomes a safe data center for file synchronization with huge storage. You can upload photos from mobile or tablet devices to the Turbo NAS, and access the same files on any computer, laptop or mobile device linked to the Turbo NAS for the most up to date files. Qsync provides multiple ways of file synchronization and group file sharing, greatly enhancing the flexibility of collaboration.

### Sync files across devices

Whenever you add, edit, delete or rename a file on one computer, the change applies to all others linked with the Turbo NAS, so you have exactly identical contents on all your devices.

### Save storage

Remove the files on one computer without affecting the files stored on other devices linked with the Turbo NAS. Even when someone updates the same files from another computer, Qsync will ensure that you will always have the latest files. When synchronizing files, you can choose to only sync specific subfolders within the Qsync folder. Great if your computers have limited storage!



### Share team folders with different groups of people

Your life is connected with different groups of people. Create subfolders within the Qsync folder, and share each with different groups of Turbo NAS users as a file exchange center. Everyone in the same subfolder is always kept up-to-date with the latest version of the files.

### Quickly share files with download links

You can create download links to share files with others. This greatly reduces the time in creating user account and password for users just to share less-important documents.

# Mobility and Remote Access

QNAP provides various mobile apps for you to access the Turbo NAS on the go.



## Qfile

Browse and manage all your files stored on your Turbo NAS with iOS® or Android™ mobile devices.

### Manage multiple NAS

You can manage as many Turbo NAS units as you want by Qfile and conveniently connect to any of them in the login page.

### Access and share files

Create a download link to share a file via email or SMS, or simply email the file as attachment. You can also view Qsync file list and download files while being offline.

### Auto-upload from photo gallery

Enable the auto-upload function will let your pictures and photo album automatically sync to your Turbo NAS and works as a real-time backup of your precious photos.

### Offline reading mode

Once a file is downloaded to Qfile from the Turbo NAS, you can view and enjoy your documents, photos and music without Internet access.

### Easy file management

Qfile displays thumbnails on the list for you to easily identify the file type at a glance. You can move, copy, rename or delete files on the Turbo NAS, all with your mobile device.



## VMobile

Monitor your IP cameras managed by the Turbo NAS on the go.

### Monitoring on the go

Access your video surveillance system and monitor the surveillance channels anytime and anywhere.

### Multiple advanced surveillance features

- Profile management for monitoring views
- Live view with multi-stream selections
- Adjustable display modes
- PTZ (Pan-Tilt-Zoom) and preset position control
- Instant notification on alarm events via on-screen alarm, sound, or vibration
- Snapshot sharing with apps such as Facebook, WhatsApp, Google Drive, and more
- Video playback and search



## Qmanager

Manage and monitor your Turbo NAS with your iOS® or Android™ devices.

### Monitor system and connection status

Qmanager lets you monitor as the CPU usage, memory usage, system event info, and active users. You can also remotely check the connection status or logged in users to prevent unauthorized activities.

### Manage system services

Remotely restart or shut down your Turbo NAS, and use Qmanager to turn the application services on and off. You can use Wake on LAN to power on your NAS. It only takes a single click and you are done!

### Manage download/backup tasks

Remotely check the Download Station and backup task information, pause or run downloads and backup tasks.



## Qmusic

Qmusic lets you stream your personal music library from Music Station at your fingertips. You can sort songs by category and listen to your favorites wherever you are.



QNAP mobile apps are available at Google Play Store and the Apple App Store.

# Surveillance and Security



## Surveillance Station Pro

The Surveillance Station Pro allows users to easily set up a home security system and flexibly choose the IP cameras for live view monitoring, recording, and playback. The live view provides instant video images from the monitored areas.

Event notifications and fast video retrieval also offered. iOS® or Android™ users can install the VMobile app to monitor the surveillance channels anytime and anywhere.



# Revolutionary Photo, Music, and Home Video Center

With the Turbo NAS, you can view and share photos, music, videos on the web, or enjoy them on large screen TV with full HD quality via DLNA, AirPlay or direct HDMI connection (available on TS-x69L with HDMI output).

Furthermore, broadcast your own music or download the contents from the Internet with various apps in the App Center.

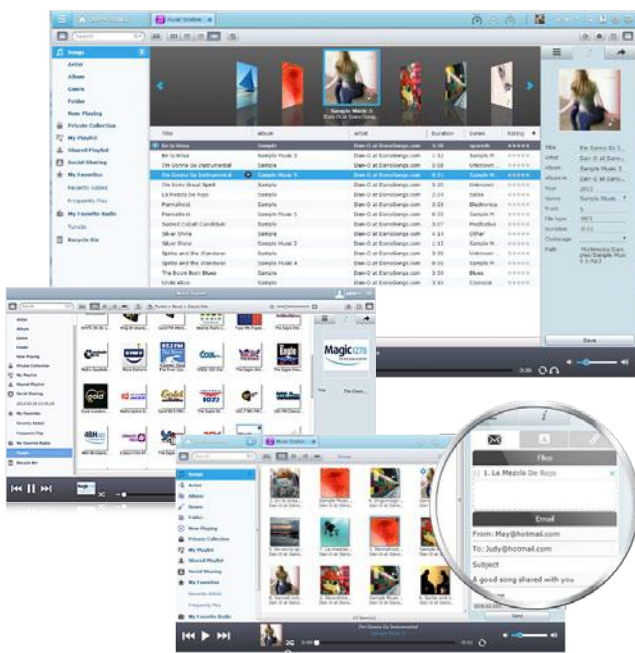
## On the Computer



### Photo Station

The QTS 4.0 Photo Station helps manage your precious photo collections intuitively.

- **Easy import**  
You can easily import the photos stored in PC, external drive and network shares to the Turbo NAS all at once.
- **Easy arranging**  
The intuitive “drag-and-drop” feature allows you to arrange photos into albums or slideshows in seconds.
- **Get organized**  
You can auto-sort photos in a timeline format and tag your friends in the photos which makes searching photos more effective.
- **Easy to share**  
Share public albums with friends on social networking sites such as Facebook, Google+, Twitter, and Pinterest.
- **Smart import**  
Simply connect your digital camera to the USB port on the front of the Turbo NAS and all your photos and videos will automatically be imported in a newly created folder named “Smart Import”.
- **Geotag photos**  
Pinpoint the location of photos on Google maps so you can identify where the photos were taken.



### Music Station

The QTS 4.0 Music Station is your personal music center in the cloud. All your music collection on the Turbo NAS is well organized and easily accessed through the web browser.

- **Manage your music collections intuitively**  
Choose to display the music in thumbnails, detailed list, album, and cover flow mode.
- **Sing along with lyrics**  
Enter song lyrics and sing along while listening to your music collection from the Turbo NAS!
- **Internet Radio**  
The built-in online radio stations such as music, talk shows, sport radio, and more are free for you to enjoy.
- **Share your music**  
Share your music by drag-and-drop, and enjoy the flexibility of being able to share the songs via email, a download link, or social networking sites such as Facebook, Google+, and Twitter.

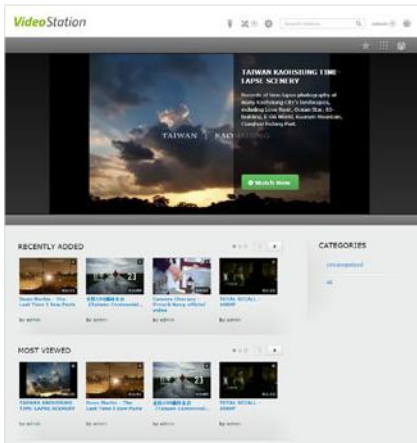


## Video Station

The Video Station is great for archiving and playing your personal video collection online.

- **Build a personal video website**

Just upload your video collection, and sit back to enjoy the clips anywhere. To add more fun, you can share your video collection with family or friends via social networking sites such as Facebook, Twitter, and Google+. Visitors can leave comments on your videos to keep the fun going.



## Digital TV Station

Just insert the DVB-T USB TV Tuner\* into your Turbo NAS at home, and you can enjoy the live TV shows immediately from anywhere using a web browser.

\* Available TV channels may vary by location and be subject to change.



## iTunes Server

Stream the MP3 music on the NAS to your computers on your home network and listen to the music by iTunes over wired or wireless network connection.

## Download and more...



### Download Station

- **Your 24/7 download center**

Typical Internet downloading requires the computers being turned on throughout the process, and it is usually energy-consuming. The Download Station serves as a non-stop download center. Once you finish managing the download tasks, just turn off the computer. The download tasks will keep going until they are finished.

- **Wide range of download types for HD videos**

You can conveniently search and download high definition movies or films to enjoy with the Download Station that supports BT, PT (Private Trackers), Magnet link, HTTP/HTTPS and FTP/FTPS download. It also supports RSS download (broadcasting) for automatic BT download.



### DJ Station

Presents all your music creation on the air! You can easily share the music on Facebook.



### HappyGet II

- **Easily back up online videos**

HappyGet is a third-party app available in the App Center and is supported within the Chrome web browser. It lets you easily back up YouTube, Vimeo videos or Facebook photos to the Turbo NAS.



### App Center

Expand the possibilities of your Turbo NAS with add-on apps.

- **Powerful, organized, rich-in-content**

The new App Center makes it easy to find and install all sorts of apps and also acts as a central platform to manage and update your installed apps.

- **One click install**

Find what you need and install it immediately with just one click.

### Wi-Fi Connectivity

Connect the Turbo NAS to the wireless network using an optional USB Wi-Fi adapter for convenient access. The Turbo NAS supports 802.11 b/g/n for extensive compatibility.



## On TV



### DLNA Media Server

With DLNA-compatible devices such as TV, Sony® PS3, Microsoft® Xbox 360 and Hi-Fi system, you can sit back and enjoy HD quality videos and audios stored on the Turbo NAS.



From DLNA to AirPlay, simply choose the way you prefer to stream digital contents to your TV, sit back, relax and enjoy your high definition video collections on a big-screen TV.



### AirPlay

The Qfile mobile app supports AirPlay. You can use the Qfile app on an iOS device to browse the videos and photos stored on the Turbo NAS and play them on the TV via AirPlay-enabled devices such as Apple TV. Available in the App Center, QAirplay allows you to stream your media content directly on TV via Apple TV with its web controller or Qfile support. The media contents are streaming on Apple TV, bypassing your mobile device, thus saves the energy of your mobile device.



### HD Station\*



#### • Enjoy HD movie experience on the big-screen TV via HDMI

A cinema-grade entertainment experience at home has never been easier! By installing the free HD Station application and connecting the Turbo NAS to a big-screen TV via HDMI, you can turn the NAS into an amazing multimedia player, and easily enjoy the vast video, music and photo collections stored on the Turbo NAS, surf the web, and enjoy YouTube on the TV.

#### • USB keyboard and mouse

You can also choose a wired/wireless USB keyboard and mouse to use the HD Station and surf the web.

#### • Turn your mobile in to a remote

Install the QNAP "Qremote" app or the official XBMC Remote app, you can use your iOS or Android devices as a remote control and enjoy your multimedia contents.



Official XBMC Remote



Qremote

\* Applied to the TS-x69L series models only.



# Turbo NAS HOME Series



	TS-869L	TS-669L	TS-569L	TS-469L	TS-269L
CPU	Intel® Atom™ 2.13GHz Dual Core	Intel® Atom™ 2.13GHz Dual Core	Intel® Atom™ 2.13GHz Dual Core	Intel® Atom™ 2.13GHz Dual Core	Intel® Atom™ 1.86GHz Dual Core
RAM	1GB DDR3 (max. 3GB)	1GB DDR (max. 3GB)	1GB DDR3 (max. 3GB)	1GB DDR3 (max. 3GB)	1GB DDR3 (max. 3GB)
No. of Internal Hard <sup>(1)</sup> Drives	8 x SATA II	6 x SATA II	5 x SATA II	4 x SATA II	2 x SATA II
Compatible Hard Drives	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch/2.5-inch
Maximum Raw Capacity	32TB	24TB	20TB	16TB	8TB
Swappable Hard Drive	Yes (Hot-swappable)	Yes (Hot-swappable)	Yes (Hot-swappable)	Yes (Hot-swappable)	Yes (Hot-swappable)
USB 3.0	2	2	2	2	2
USB 2.0	5	5	5	5	3
eSATA	2	2	2	2	1
HDMI	Yes	Yes	Yes	Yes	Yes
10/100/1000 Mbps Ethernet	2	2	2	2	2
Wake on LAN	Yes	Yes	Yes	Yes	Yes
Dimensions (HxWxD)mm	185 x 298.2 x 235.5	185 x 260 x 235.5	185 x 210.6 x 235.5	177 x 180 x 235	150 x 102 x 216
Weight (Net/Gross) kg	7.1/8.4	4.75/6.05	4.4/5.8	3.65/4.65	1.74/2.92
RAID Support	Single Disk, JBOD, RAID 0, 1, 5, 6, 10, 5/6/10+ Hot Spare			Single Disk, JBOD, RAID 0, 1, 5, 6, 10, 5+ Hot Spare	Single Disk, JBOD, RAID 0, 1
External Power Adapter	350W	250W	250W	250W	90W
Smart Fan	2 (12cm)	2 (9cm)	1 (12cm)	1 (9cm)	1 (7cm)
Power Consumption <sup>(2)</sup> (HDD Sleep/Operation)	Sleep mode: 38W In operation: 71W (with 8 x 500GB HDD installed)	Sleep mode: 31.5W In operation: 63.6W (with 6 x 500 GB HDD installed)	Sleep mode: 29.1W In operation: 48.5W (with 5 x 500 GB HDD installed)	Sleep mode: 23W In operation: 34W (with 4 x 500 GB HDD installed)	Sleep mode: 18W In operation: 22W (with 2 x 500GB HDD installed)
Transfer Performance with Port Trunking <sup>(2)</sup> (Read/Write MB/Sec)	222.3/222.1*	221.8/220.8*	220.8/219.8*	221.8/212.2*	218.4/221.8*
Max No. of Users	4096	4096	4096	4096	4096
Max No. of User Groups	512	512	512	512	512
Max No. of Network Shares	512	512	512	512	512
Max No. of Concurrent Connections	500	500	500	500	500
Max No. of IP Cameras	16	16	16	16	16



	TS-421	TS-420	TS-412	TS-221	TS-220	TS-212	TS-121	TS-120	TS-112
CPU	Marvell 2.0GHz	Marvell 1.6GHz	Marvell 1.2GHz	Marvell 2.0GHz	Marvell 1.6GHz	Marvell 1.2GHz	Marvell 2.0GHz	Marvell 1.6GHz	Marvell 1.2GHz
RAM	1GB DDR3	512MB DDR 3	256MB DDR2	1GB DDR3	512MB DDR3	256MB DDR2	1GB DDR3	512MB DDR3	256MB DDR2
No. of Internal Hard <sup>(1)</sup> Drives	4 x SATA II	4 x SATA II	4 x SATA II	2 x SATA II	2 x SATA II	2 x SATA II	1 x SATA II	1 x SATA II	1 x SATA II
Compatible Hard Drives	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch	3.5-inch/2.5-inch	3.5-inch/2.5-inch	3.5-inch
Maximum Raw Capacity	16TB	16TB	16TB	8TB	8TB	8TB	4TB	4TB	4TB
Swappable Hard Drive	Yes (Hot-swappable)	Yes (Hot-swappable)	Yes (Hot-swappable)	Yes (Hot-swappable)	Yes (Hot-swappable)	-	Yes	Yes	No
USB 3.0	2	2	-	2	2	-	2	2	-
USB 2.0	2	2	4	1	1	3	1	1	3
eSATA	2	2	2	2	2	-	1	1	1
10/100/1000 Mbps Ethernet	2	2	2	1	1	1	1	1	1
Wake on LAN	Yes	Yes	-	Yes	Yes	-	Yes	Yes	-
Dimensions (HxWxD)mm	177 x 180 x 235	177 x 180 x 235	177 x 180 x 235	150 x 102 x 216	168.5 x 102 x 225	165.5 x 85 x 218.4	150 x 67 x 216	168.5 x 73 x 225	165.5 x 60 x 218.4
Weight (Net/Gross) kg	3/4.6	3/4.6	3/4.6	1.74/2.92	1.28/2.32	0.9/1.9	1.06/1.86	1.04/1.8	0.79/1.7
RAID Support	Single Disk, JBOD, RAID 0, 1, 5, 6, 10, 5+ Hot Spare			Single Disk, JBOD, RAID 0, 1			Single Disk, Q-RAID 1		
External Power Adapter	External power adaptor, 120W Input: 100-240V	External power adaptor, 120W Input: 100-240V	External power adaptor, 120W Input: 100-240V	External power adaptor, 60W Input: 100-240V	External power adaptor, 60W Input: 100-240V	External power adaptor, 60W Input: 100-240V	External power adaptor, 36W Input: 100-240V	External power adaptor, 36W Input: 100-240V	External power adaptor, 36W Input: 100-240V
Smart Fan	1 (9cm)	1 (9cm)	1 (9cm)	1 (7cm)	1 (7cm)	1 (6cm)	1 (5cm)	1 (5cm)	1 (5cm)
Power Consumption <sup>(2)</sup> (HDD Sleep/Operation)	Sleep mode: 13W In operation: 31W (with 4 x 500GB HDD installed)	Sleep mode: 13W In operation: 26W (with 4 x 500GB HDD installed)	Sleep mode: 11W In operation: 26W (with 4 x 500GB HDD installed)	Sleep mode: 8W In operation: 19W (with 2 x 500GB HDD installed)	Sleep mode: 7W In operation: 16W (with 2 x 500GB HDD installed)	Sleep mode: 6W In operation: 13W (with 2 x 500GB HDD installed)	Sleep mode: 5W In operation: 12W (with 1 x 500GB HDD installed)	Sleep mode: 4W In operation: 7W (with 1 x 500GB HDD installed)	Sleep mode: 5W In operation: 7W (with 1 x 500GB HDD installed)
Transfer Performance with Port Trunking <sup>(2)</sup> (Read/Write MB/Sec)	212.5/ 148.0*	212.1/ 145.3*	201.2/ 129.5*	107.9/ 77.5	102.9/ 71.4	99.8/ 66.2	103.8/ 77.2	103.3/ 65.1	98.4/ 66.2
Max No. of Users	4096	4096	4096	2048	2048	2048	2048	2048	2048
Max No. of User Groups	512	512	512	256	256	256	256	256	256
Max No. of Network Shares	512	512	512	256	256	256	256	256	256
Max No. of Concurrent Connections	256	256	256	256	256	256	256	256	256
Max No. of IP Cameras	8	8	8	8	8	8	8	8	8

(1) The standard system is shipped without hard drives. Please visit [www.qnap.com](http://www.qnap.com) for the official hard drive compatibility list.

(2) Actual results may vary due to environment factors and other variables.

\* The performance figures are based on port trunking configuration.

All specifications are subject to change without notice. For more QNAP product information, please visit [www.qnap.com](http://www.qnap.com)

# QTS 4.0 Home/SOHO NAS Applications

## Operating System

- 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

- Microsoft Internet Explorer 10
- Mozilla Firefox 8+
- Apple Safari 4+
- Google Chrome

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

## Networking

- TCP/IP (IPv4 & IPv6): Dual Stack
- Dual Gigabit NICs with Jumbo Frame\*
  - Failover
  - Multi-IP Settings
  - Port Trunking/NIC Teaming
- Service Binding Based on Network Interfaces\*
- Proxy Client, Proxy Server
- 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 Certificate
- Instant Alert via E-mail, SMS, Beep, and LCD Panel\*

## Disk Management

- Online RAID Capacity Expansion and Online RAID Level Migration
- Bad Block Scan and Hard Drive S.M.A.R.T.
- 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

## 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 Web File Manager

## myQNAPcloud Service

- Private Cloud Storage and Sharing
- Free Host Name Registration (DDNS)
- Auto Router Configuration (via UPnP)
- CloudLink for Remote Access without Complicated Router Setup

- myQNAPcloud Connect for Easy VPN Connection (Windows VPN Utility)

## Qsync

- Syncs Files among Multiple Devices through the NAS
- Option for Not Removing Files on the NAS during Synchronization
- Selective Synchronization
- Shares Securely with SSL
- Team Folder
- Shares Files by Links via E-mail
- Uploads Photos or Videos to Qsync Folder Automatically via Qfile
- Restores Files from Network Recycle Bin
- File Name Conflict Policy
- Option for Filter Settings
- Privilege Control for Qsync Users
- Supports Windows & Mac OS

## Web Administration

- Multi-window, Multi-tasking based System Management
- Movable Icons and Personalized Desktop
- Smart Toolbar and Dashboard for Neat Display on System Status
- Smart Fan Control
- Dynamic DNS (DDNS)
- SNMP (v2 & v3)
- Resource Monitor
- Network Recycle Bin for File Deletion via CIFS/SMB and AFP
  - Automatic Cleanup
  - File Type Filter
- Comprehensive Logs (Events & Connection)
- Syslog Client/Server
- Firmware Live Update
- System Settings Backup and Restore
- Restore to Factory Default
- Mobile App Qmanager for Remote Monitoring

## 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 Supported
- Passive FTP Port Range Control

## File Station

- Supports ISO Mounting (Up to 256 ISO Files)
- Creates and Sends Download Links for Sharing Public Files with Expiration Time and Password Protection
- Drag-n-drop Files via Chrome and Firefox Browsers
- Photo, Music, and Video Preview and Playback Empowered by Built-in Transcoding Technology
- File Compression (ZIP or 7z)
- Advanced Search
- 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 by QNAP NetBak Replicator for Windows
- Apple Time Machine Support with Backup Management
- Data Backup to Multiple External Storage Devices
- Synchronizes with Cloud Storage: Amazon S3, ElephantDrive, Symform, Dropbox, and Google Drive
- Third Party Backup Software Support:

- Veeam Backup & Replication, Acronis True Image, ARCserve Backup, EMC Retrospect, Symantec Backup Exec, LaCie SilverKeeper, etc.

## Print Server

- Max No. of Printers: 3
- Supports Internet Printing Protocol
- Print Job Display and Management
- IP-based and Domain Name-based Privilege Control
- Supports Apple Bonjour Printing

## Photo Station

- Organizes Photos in Timeline Automatically
- Tags Photos by Text, Color, and Rating for Quick Search
- Slideshows with Background Music and Different Transition Effects
- Animated Thumbnails for Videos\*
- Online Photo Editing by Pixlr Editor
- Geotags Photos with Google Maps
- Shares Slideshows and Photo through Email and Sharing Link
- Publishes Slideshows to Social Websites (Facebook, Google+, Twitter, Pinterest, Weibo, Plurk, and Renren)
- Supported File Formats:
  - Photo: JPG/JPEG, GIF, PNG, BMP and RAW
  - Video: MP4 (H.264 + AAC)

## Music Station

- Plays or Shares Music Collections with Web Browser
- Automatic classification via Media Library
- Local Playback with USB Speakers/Sound Card
- Music Streaming from DLNA/UPnP Media Servers
- Internet Radio (MP3)
- Music Alarm (up to 8 Alarms)
- Supported Audio Formats: MP3, OGG, WAV, AIFF, AU, FLAC, M4A, APE, AAC

## iTunes Server

- Audio and Video Sharing for Windows & Mac iTunes
- Smart Playlist

## Video Station

- Web Video Sharing
- Video Categorization and Transcoding
- Video Upload
- Publish Videos to Facebook, Twitter, and Google+

## DLNA Server

- Supports DLNA/UPnP TVs and Players such as PlayStation 3 and Xbox 360
- On-the-fly Transcoding for Video and Audio\*

## AirPlay

- Streams Videos, Photos and Music from NAS to Apple TV via Qfile or QAirplay's Web-based Controller

## Digital TV Station

- DVB-T Digital TV Live View, Recording, and Playback
- Supports up to 2 USB TV Tuners\*
- Electronic Programming Guide (EPG) with Scheduled Recording
- Note: The availability of DVB-T broadcasting and EPG may vary depending on geographic locations.

## Download Station

- PC-less BT, FTP, and HTTP Download (up to 500 Tasks)
- BT Download with Magnet Link and PT Support
- Supports TCP/UDP Tracker Protocol
- Scheduled Download
- Bandwidth Control
- RSS Subscription and Download (Broadcatching)
- Selectable Download Files
- Configurable Saving Directory
- HTTP/FTP Download

- Bulk Download with Wildcard Settings
- RapidShare Download Support
- Website Subscription Service: YouTube, Vimeo, niconico
- QNAP Download Management Software: QGet
  - For Both Windows & Mac OS
  - Manage the Download Tasks of Multiple QNAP NAS Remotely over LAN or WAN

## HD Station\* (for TS-x69L only)

- Playbacks Videos, Music, Photos on TV with XBMC via HDMI Output
- Watch Various Online Contents Such as YouTube, Flickr, Picasa, Shoutcast, etc.
- Web Browser
- Supports USB U.S. Keyboards and Mice
- Supports Official XBMC Remote App
- Qremote Remote Control App: iOS Note:
  1. For the best HD Station experience, QNAP recommends upgrading your Turbo NAS memory to 2GB or more.
  2. The playback and quality of some video files may be affected due to the current CPU and GPU's decoding capability.
  3. Currently the HDMI Audio Passthrough is not supported.

## Surveillance Station Pro

- Supports over 1,400 IP Cameras
- Includes 1 Free Camera License
- Up to 16 Camera Channels via Additional License Purchase\*
- Intelligent Video Analytics (IVA) for Advanced Video Search
- Visual Aid by E-map
- Surveillance Client for Mac
- Mobile App: VMobile (iOS and Android)

## DJ Station

- Live Web Broadcast of Music Playlists
- Music Sharing on Facebook, Google+, Twitter

## APP Center

- Adds New Features by Online Installation of over 90 Official and Community Software Add-ons (The actual available software add-ons may vary depending on the NAS platform)

## Storage Plug & Connect

- Creates and Maps Shared Folders by QNAP Windows Qfinder
- Creates and Connects to iSCSI Target/LUN

## iSCSI (IP SAN)

- iSCSI Target
- Up to 256 Targets/LUNs Combined
- Supports LUN Mapping & Masking
- Online LUN Capacity Expansion
- Supports SPC-3 Persistent Reservation
- Supports MPIO & MC/S
- iSCSI LUN Backup, One-time Snapshot, and Restore
- Virtual Disk Drive (via iSCSI Initiator)

## Domain Authentication Integration

- Microsoft Active Directory (AD)
- LDAP Server
- LDAP Client
- Domain Users Login via CIFS/SMB, AFP, FTP, and File Station

## VPN Server

- Secure Remote Access: PPTP & OpenVPN VPN services
- Max No. of Clients: 30

- \* This feature may vary according to different models.
- \*\* The data encryption functions may not available in accordance with the legislative restrictions of some countries.

Design and specifications are subject to change without notice.

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