TS-119 / TS-219
Turbo NAS

QNAP
www.qnap.com

All-in-one NAS Server with iSCSI
for SMB, SOHO and Home Users

- **Superior Performance for Cross-platform Data Sharing**
- **Share, Access and Manage the Stored Files Securely**
- **Built-in iSCSI Target Service**
- **Online RAID Capacity Expansion & Online RAID Level Migration***
- **Most Advanced Backup Solution (Auto-Sync/ Instant/ Schedule Backup)**
- **Comprehensive Log Systems**
- **Built-in UPnP/ DLNA Media Server for Digital Home Entertainment**

Abundant Business Server Features

- **File Server**
- **Web Server**
- **FTP Server**
- **Media Server**
- **Remote Replication (Rsync)**
- **Surveillance Station**
- **iSCSI Target**
- **Printer Server** (Max. 3 Sets)
- **Mirror Station**
- **Multimedia Station**
- **Download Station**
- **And More...**

* for TS-219 only

All-in-one NAS Server with iSCSI

for SMB, SOHO and Home Users

Overview

The TS-119 and TS-219 Turbo NAS are QNAP's next generation one-bay and two-bay Turbo NAS series with iSCSI, especially designed for small business and home users who are eager for a NAS of outstanding specifications, performance, powerful all-in-one server features, high stability, and high reliability.

Superior performance with abundant business features
Adopting Marvell 1.2 GHz CPU and large-sized 512MB DDRII RAM, the Turbo NAS maintains superior performance even when there is intensive access to the network services of the server simultaneously. Enhanced industry-leading features are also provided, e.g. built-in iSCSI target service, Online RAID Capacity Expansion*, Online RAID Level Migration*, policy-based unauthorized IP blocking, instant SMS alert, schedule power on/ off, and two IP cameras (optional purchase) for network surveillance.

Maximize the enjoyment of your home multimedia center
The built-in UPnP/ DLNA media server (with TwonkyMedia enabled) of the Turbo NAS supports a wide range of DLNA media players such as Sony PS3 and Microsoft Xbox 360 gaming consoles and works well with NFS-supported High-Definition (HD) DMA for HD video streaming. PC-less Download Station with the unique QGet utility enables you to manage the BT/ FTP/ HTTP download tasks remotely over the local network or the Internet. The TS-119 and the TS-219 are the ideal multimedia and storage solutions to enhance your home entertainment experience.

* for TS-219 only

ALL-in-One Server Features

Cross-platform File Sharing: The Turbo NAS is designed for different users to share the files across Windows, Mac, Linux, and UNIX environment.

Windows AD: The Windows AD feature enables you to import user accounts from AD domain to NAS to reduce the time and effort for account setup, and the users can use the same set of login name and password.

File Server: The Turbo NAS allows you to create user ID and password, and define the authority and quota for each user.

FTP Server: You can establish your own FTP server by using the Turbo NAS and share the files conveniently with your friends or customers.

Exclusive Windows-based Backup Utility: The automatic backup software, NetBak Replicator, is provided for you to perform real-time synchronization or schedule backup from multiple PCs to the Turbo NAS.

Remote Replication: The data on the NAS can be backed up to or from another Turbo NAS or Rsync server over the network.

Surveillance Station: The Surveillance Station enables you to configure and connect multiple IP cameras simultaneously for remote monitoring, video recording and playback.

Printer Server: The NAS supports network printer sharing function (max 3 USB printers).

UPnP Media Server (with built-in TwonkyMedia): The Turbo NAS is an ideal storage center that works well with DLNA (Digital Living Network Alliance) compliant media players. You can play the multimedia contents (photos, music, or video) stored on the NAS on TV or Hi-Fi system.

iTunes Server: You can stream the mp3 music from the NAS to the Windows PC or Mac over the network and play the files by iTunes.

Multimedia Station: You can upload your photos, music, or video files to the NAS and share them with your friends and family via the web-based album.

Download Station: The NAS supports PC-less BitTorrent, HTTP, and FTP download. You can use the QGet download utility provided by QNAP to manage the download tasks on multiple Turbo NAS servers.

Web Server: With the built-in phpMyAdmin, Joomla!, editable php.ini, MySQL and SQLite, you can easily set up your web server and other online applications such as online shops, forums, and blogs.

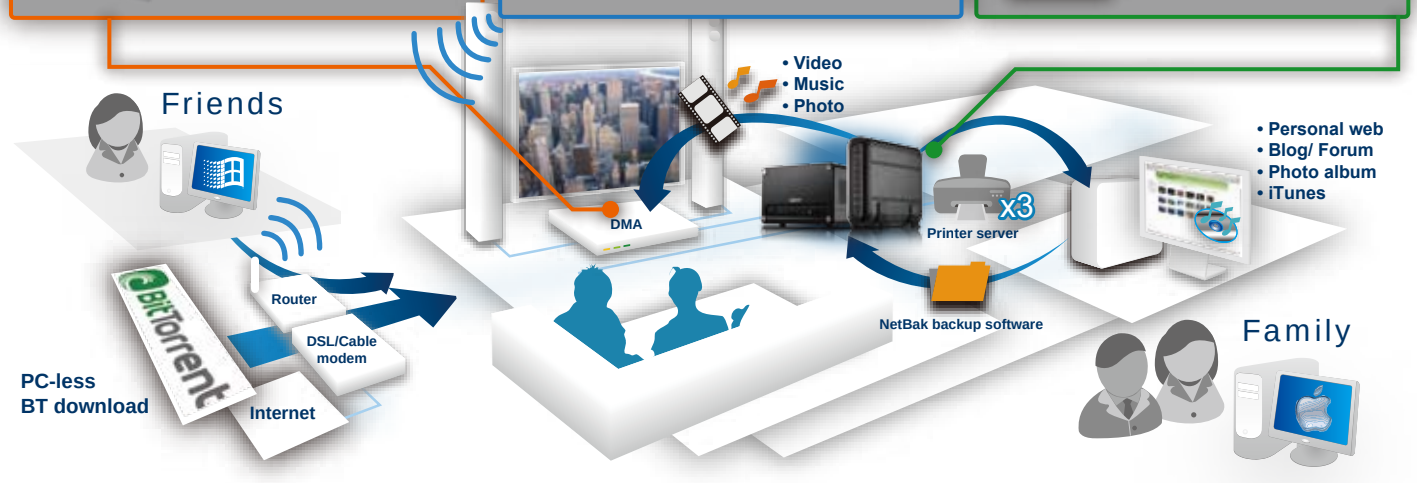
MySQL Server: The Turbo NAS is the most affordable choice as a standalone database server. It can be applied as a database server of another web server or as an additional backup database server.

Powerful Multimedia Storage Center

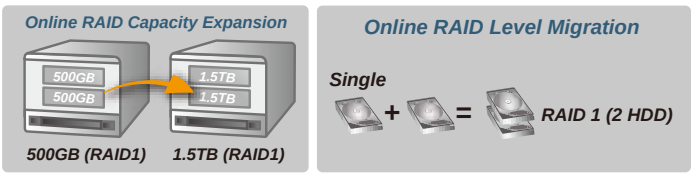
Supports PS3 and XBox360
All the photos, music, and videos stored on the Turbo NAS can be played via PS3 or XBox360 on your LCD TV or stereo Hi-Fi system.

Using QNAP NAS with iPhone or iPod touch
By installing DLNA/ UPnP application on the iPhone or iPod touch, you can access QNAP NAS on the local network and play the multimedia contents, e.g. videos, music, and photos on the server.

Software expansion via QPKG Center
The QPKG software package platform enables you to maximize the usage of the Turbo NAS by installing additional software packages developed by the users and community worldwide.



Advanced RAID Management with Hot-swap Design

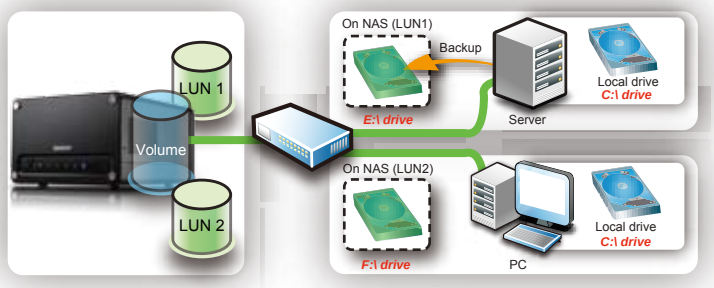


Online RAID Capacity Expansion and Online RAID Level Migration

The TS-219 offers RAID 0, 1, Single and JBOD disk configurations. It also supports hot-swap design easy maintemance and non-stop service.

Flexible Built-in iSCSI Target Service

With the built-in iSCSI target feature, the NAS can be an ideal solution for backup or storage expansion. Small business and SOHO users can easily create dedicated virtual drives on the NAS for their PCs or existing servers. The iSCSI drives on the NAS can be formatted as file system and used as local drives.



Smart Hard Drive Tools

HDD S.M.A.R.T. (Self-monitoring Analysis and Reporting Technology): HDD S.M.A.R.T. offers a quick overview of the hard drive status which enables you to monitor the hard drives and check potential problems. You can also set the schedule for S.M.A.R.T. test (rapid or complete) to ensure the health of the hard disks.

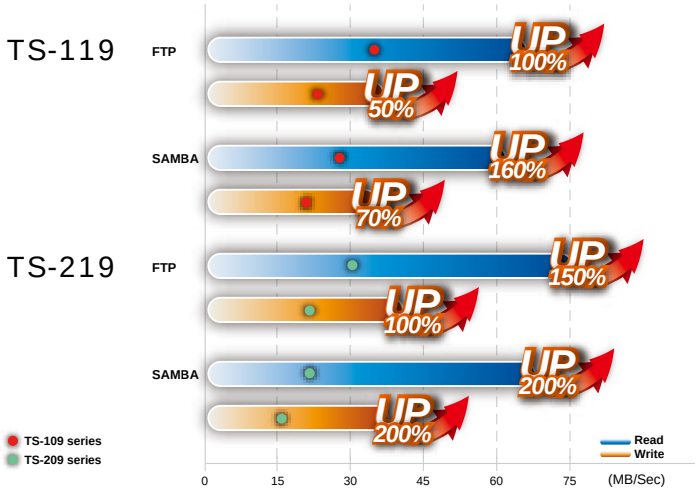
Advanced Hard Drive Protection (HHS): The embedded HHS (HDD health scanning) technology supports disk checking and bad blocks scanning which helps you discover the abnormal issue of the hard disks to prevent disaster.

Convenient System Tools

Batch Creation of Users and Network Shares: The NAS supports batch creation of users and share folders to save your time and effort in account and folder creation.

Instant SMS & Email Alert: You can configure the SMTP server and SMSC server settings on the NAS in order to receive instant system warning or error messages by email or SMS.

Ultra-high Speed Performance



- Client PC: Intel® Core™2 Quad 2.34GHz CPU, 2GB RAM, NVIDIA nForce Networking Controller, Windows Vista 32-Bit SP1
- Testing Method: Connect the TS-119/219 and PC to switch, upload/download 3GB file, FTP program: FileZilla 3.1.5

Efficient Power Management

1. Hard Disk Standby: You can configure the hard disks to enter standby mode if there is no disk access within the specified period.
2. Schedule Power on/ off: The flexible schedule power on/off feature enables you to manage the NAS server's up time according to the working hours. You can set the time for automatic system power on, power off, or restart on any days of the week.
3. Power Resumption Settings: The Turbo NAS can be configured to be turned on or off when the AC power resumes after a power loss.
4. UPS Support & Advanced Standby Setting: The Turbo NAS supports the majority of USB UPS devices (usbhid-ups supported). You can also set the time for the server to enter advanced stand-by mode when an abnormal AC power supply is detected. When the power resumes, the server resumes to the operation status before the power outage.

Low Power Consumption

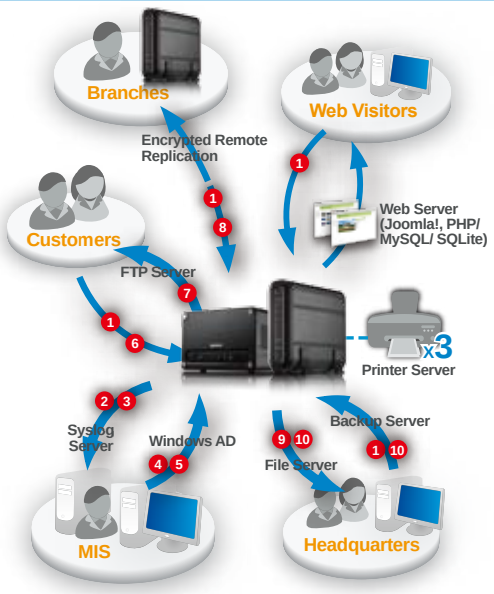
Comprehensive Log System

Comprehensive Event Log System: The logs of connections to the NAS via samba, FTP, AFP, HTTP, HTTPS, Telnet, and SSH, and networking services accessed by the online users are all recorded.

Secure Measures for Data Storage and Access

The Turbo NAS supports file sharing across Linux, UNIX, Mac, and Windows platforms. Versatile business functions are supported, e.g. file server, FTP server, backup server, printer server, web server, remote replication and Windows AD (Active Directory). SSH login and web page SSL login enable users to transfer, store, and share data securely.

1. Policy-based Unauthorized IP Blocking: You can allow, deny or auto block specified IP address or network domain which attempts to connect to the Turbo NAS via SSH/ Telnet/ HTTP(S)/ FTP/ samba/ AFP.
2. Comprehensive Log System: Detailed logs of file-level data access to the Turbo NAS via samba, FTP, AFP, HTTP, HTTPS, Telnet, and SSH, and networking services accessed by online users are all recorded.
3. Syslog Setting: All the system event logs and connection logs can be saved to a remote syslog server.
4. Remote Login by SSH (secure shell) or Telnet connection is supported.
5. SSL Security (HTTPS): The Turbo NAS can be accessed and configured by the web browser securely. You can also upload a secure certificate and RSA private key in X.509PEM format issued by a trusted provider for the users to access the Turbo NAS by secure SSL login.
6. Secure FTP: The data can be transmitted with SSL/TLS (explicit) encryption. Passive FTP port range setup is also supported.
7. Write-only access right on FTP server: The third party partners are allowed to upload data to the NAS but not able to read or edit the data on FTP server.
8. Encrypted Remote Replication: The data on the NAS can be backed up to or from another Turbo NAS over the network securely.
9. Share Folder Management: For the security of Windows network environment, you can hide or show network share folders.
10. User Authority Management: You can create user ID and password, and define the authority and quota for each user.



Hardware Specifications

Processor
- Marvell 6281 1.2GHz

Memory
- 512MB DDRII RAM, 16MB Flash

HDD Capacity
- TS-119: 1 x 3.5" SATA I/II HDD, up to 2 TB (the standard system is shipped without HDD)
- TS-219: 2 x 3.5" SATA I/II HDD, up to 4 TB (the standard system is shipped without HDD)

LAN Port
- 1 x Gigabit RJ-45 Ethernet port

LED Indicators
- USB, Status, HDD, LAN, Power, eSATA (TS-119 only)

USB
- 3 x USB 2.0, supports USB printer, disk, digital camera, pen drive, USB hub, and USB UPS etc.

Buttons
- USB auto-copy button
- Power button
- Reset button

Alarm Buzzer
- System warning

Form Factor
- TS-119: Portable desktop
- TS-219: Compact cubic type

Dimensions
- TS-119: 210(D) x 60(W) x 182(H) mm
- TS-219: 214(D) x 175(W) x 115(H) mm

Weight
- TS-119
  Net weight: 1.2Kg/ Gross weight: 2.1Kg
- TS-219
  Net weight: 2.4Kg/ Gross weight: 3.5Kg

Operation Environment
- Temperature 0~40°C
- Humidity 0~95% R.H.

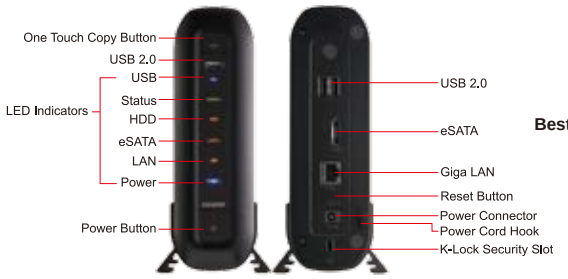
Power Supply
- External adaptor
  TS-119: 36W, 100~240V
  TS-219: 60W, 100~240V

Thermal Solution
- TS-119: Fanless
- TS-219: Smart fan

Secure Design
- K-Lock security slot for theft prevention

No Fan Design

QNAP TS-119 is the only NAS with no fan design in the world. The aluminum casing is a giant heat-sink, dissipating heat from the TS-119 to the ambient environment.



Best heat dissipation

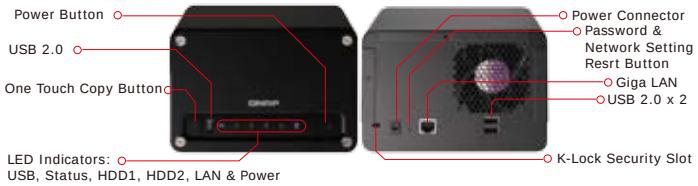
Fanless

RAID-1 Mirroring with Hot-swap Design

The TS-219 supports RAID 1 mirroring with hot-swap design. When a member drive of the RAID configuration fails, you can replace the hard drive by hot swapping without turning off the NAS. The disk data will be automatically rebuilt to the new hard drive.

Outstanding Design

Excellent mechanical design by HDD bracket to generate wind tunnel effect. HDD heat dissipation is carried out through the channel efficiently.



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*Designs and specifications are subject to change without notice. Please contact QNAP for updated information.

Software Specifications

Operation System
- Linux-embedded system

Networking
- TCP/ IP, DHCP Client, DHCP Server, CIFS/ SMB, AFP, NFS, HTTP, HTTPS, FTP, DDNS, NTP, Gigabit Jumbo Frame, Bonjour

File System
- EXT3 (Internal/ external HDD)
- FAT (External HDD)
- NTFS (External HDD, read only)

Supported Operating Systems
- Microsoft® Windows® 98/ ME/ NT/ 2000/ XP/ 2003/ Vista
- Mac OS X
- Linux and Unix

Disk Management
- Single disk, RAID 0/ 1 and JBOD*
- Online RAID Capacity Expansion*
- Online RAID Level Migration*
- Disk usage status management
- Check disk (Check Linux file system)
- HDD S.M.A.R.T.
- Bad blocks scan
- Built-in iSCSI target service

User Management
- User quota management (per user)
- Windows AD
- User account management (max. 2048 users)
- User group management (max. 256 groups)
- Batch creating users

File System Management
- Network share management (max. 256 shares)
- Share folder level ACL support
- Hide share folder on Windows network
- Unicode support
- Journaling file system
- Web File Manager

System Tools
- E-mail alert (SMTP authentication)
- SMS alert
- HDD standby mode
- Disk usage alert
- Automatic power on after power loss
- System firmware upgrade
- Change homepage Logo
- Backup, restore, reset system settings
- Smart fan setting*
- Configurable management port
- Policy-based unauthorized IP blocking
- Secure remote login by SSH connection; remote login by Telnet connection
- USB, SNMP UPS support
- Schedule on/ off (max. 15 settings)
- Network recycle bin
- Import SSL certificate

Event Logs
- Complete system logs (system events management, connection logs, current connection of on-line users)

Multilingual Support
- English, Traditional Chinese, Simplified Chinese, Japanese, Korean, French, German, Italian, Spanish, Russian, Swedish, Danish, Finnish, Norwegian, and Polish

Backup Management
- PC client backup software-NetBak Replicator: Instant/ Schedule/ Auto-sync backup
- Encrypted remote replication
- TS-119: Q-RAID 1
  TS-219: RAID 1
- Back up to external storage device

Powerful All-in-one Server

File server
- File sharing across Windows/ Mac/ Linux/ Unix and centralized management

FTP server
- Supports data access from remote location via FTP (max. 256 concurrent connections)
- FTP with SSL/ TLS (explicit) mode
- FTP bandwidth control and connection control
- Passive FTP port range control

Backup server
- Client-side backup software-NetBak Replicator supports instant, schedule, and auto-sync backup
- 3rd party backup software support: Acronis True Image, CA Brightstor ARCserve Backup, EMC Retrospect, Symantec Backup Exec, LaCie Silverkeeper

Printer server
- Network printer sharing via USB (Windows & Mac)
- Supports all-in-one printer (max. 3 sets)

Remote Replication
- Block-level remote replication supports instant, schedule backup management; support synchronization mode

Web Server
- Built-in phpMyAdmin, Joomla!, editable php.ini, SQLite and MySQL

MySQL Server
- MySQL database server

UPnP MediaServer
- Supports UPnP/ DLNA multimedia technology; share stored photos and home videos on TV, listen to music on Hi-Fi system via DMP
- Enjoy more than hundreds of worldwide Internet radio (built-in TwonkyMedia)
- Supports DLNA media playing with PS3, Xbox360, PSP
- Supports Nokia N95 (DLNA control point)
- Supports iPhone/ iPod DLNA/ UPnP application

iTunes Server
- iTunes server for music sharing
- Smart playlist for iTunes software

Multimedia Station
- Image slide show and rotation (+90°, -90°)
- Display photo details: date, exposure time, aperture, etc.
- Automatic thumbnail generation for easy browsing
- Photo album access authority management
- Multimedia files local play
- Automatic file categorization

Download Station
- PC-less BitTorrent/ FTP/ HTTP download
- QNAP remote download control software: QGet (Windows & Mac), allows you to control the download tasks of multiple Turbo NAS on one PC via LAN/ WAN.
- BitTorrent download supports TCP/ UDP tracker protocol, DHT
- BT schedule download
- BT tasks download (up to 500)
- Download configuration (current seed number, configurable port range, bandwidth control, download percentage, UPnP NAT port forwarding for BitTorrent download)
- Download status list management (download percentage)
- Supports access from Mac by Mozilla Firefox

Surveillance Station
- Supports 2 IP cameras (optional purchase) for network surveillance

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