

QNAP

Turbo NAS

TS-453Bmini

New 14nm Intel® Celeron® J3455 quad-core processor, 4K video experience



Using your NAS as a PC

Universal smart NAS

- A great leap in performance with the 64-bit QTS 4.3
- Ubuntu virtual machine and IoT network applications
- Enjoy 4K video playback and fast file transfer



Dual network encrypted read/write performance

224 MB/s

Equipped with AES-NI encryption acceleration engine



High performance, energy efficient
quad-core 1.5 GHz processor
(bursting up to 2.3 GHz)

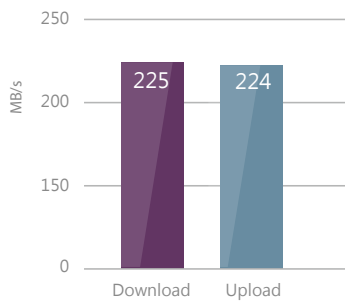
- Near-silent, space-saving vertical NAS
- Easy multi-tasking with 4GB, 8GB DDR3L dual-channel memory
- Create multiple Windows, Linux, Unix, or Android virtual machines for virtualization applications
- Container Station provides rapid deployment, high-availability lightweight virtualization

TS-453Bmini

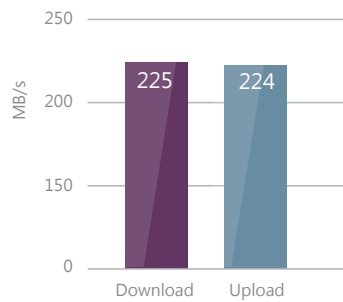
Intel® Celeron® J3455 quad-core processor with AES-NI encryption acceleration

TS-453Bmini uses the latest 14nm Intel® Celeron® J3455 quad-core 1.5 GHz (up to 2.3 GHz) processor with 10-watt TDP and 4GB/8GB DDR3L dual channel RAM (up to 8GB) with 2 built-in Gigabit Ethernet ports and supports SATA 6Gb/s transmission interface. Under a dual-network environment, it can provide up to 224MB/s read/write performance, enough to run smoothly with intensive or multi-task operations. TS-453Bmini has built-in Intel® AES-NI encryption engine using AES 256-bit encryption acceleration technology for NAS volume encryption or folder encryption and can maintain up to 224MB/s data read/write speed, so it can protect important information in TS-453Bmini while maintaining the system's high performance and security at the same time.

File Transfer (2 x 1 GbE)



Encrypted File Transfer (2 x 1 GbE)



Tested in QNAP laboratories. Data may vary due to differences in physical environments.

Test environment:

NAS:

- OS: QTS 4.3.2

- Volume type: RAID 5 (Seagate ST1000NM0033 x4)

Client:

- Intel® Core™ i7-4770 3.40Ghz, DDR3 1600Hz 16GB, ST31000524AS, Microsoft Windows 10 64bit

Innovative design, easy system upgrade

The glossy TS-453Bmini features a stylish vertical design that takes up 29% less desktop space*, making it suitable for offices or even study rooms at home. Compared with the traditional NAS cooling fan, the TS-453Bmini houses a quiet internal compact exhaust that helps dissipate heat, delivers less noise and reduces dust. With the tool-less design, you can easily remove the TS-453Bmini's magnetic top cover to add or replace hot-swappable 3.5" hard drives**. Upgrading the RAM of a NAS has also never been easier with a conveniently accessible cover at the bottom. The TS-453Bmini is perfectly designed for easy use and maintenance.

* Compared with the TS-453A

** Tool-free installation is only for 3.5" hard drives

Tool-free hard disk installation



Easy installation



Upgrade anytime



Setup anywhere



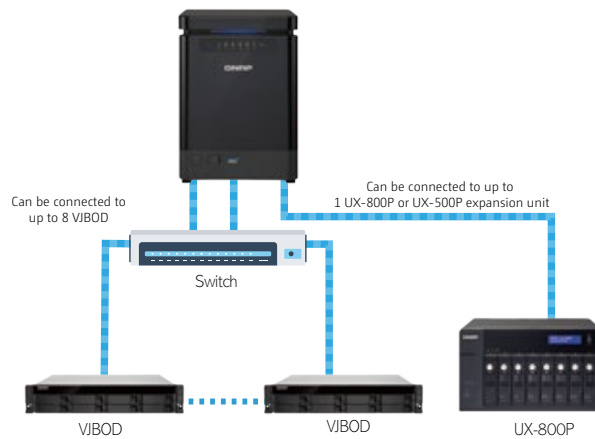
QTS 4.3 - The ultimate user experience

The new QTS 4.3 operating system dramatically improves multitasking efficiency and enables users to work in multi-window, multi-desktop, and multi-display modes. You can start new tasks without completing the ones in hand. QTS 4.3 provides numerous applications to fit enterprise requirements, personal productivity and multimedia entertainment. With new smart agent services, data and system management is more flexible and automatic for optimum management efficiency.



Flexible storage expansion

The TS-453Bmini provides efficient and affordable storage solutions to meet growing data and large file storage requirements. By using QNAP expansion enclosures, storage capacity can be expanded online without needing to power off the TS-453Bmini. This easy expansion makes the TS-453Bmini suitable for applications in data-intensive industries, such as surveillance video storage, mass data storage or TV archival storage.



4K playback and transcoding

The TS-453Bmini features Intel® 9th generation HD Graphics for 4K video playback (HDMI) and transcoding, making it a complete multimedia center for direct audiovisual output*. A free remote control is included with the TS-453Bmini for easily operating the HD Station app. The Qremote mobile app can also convert your mobile device into a convenient remote control.

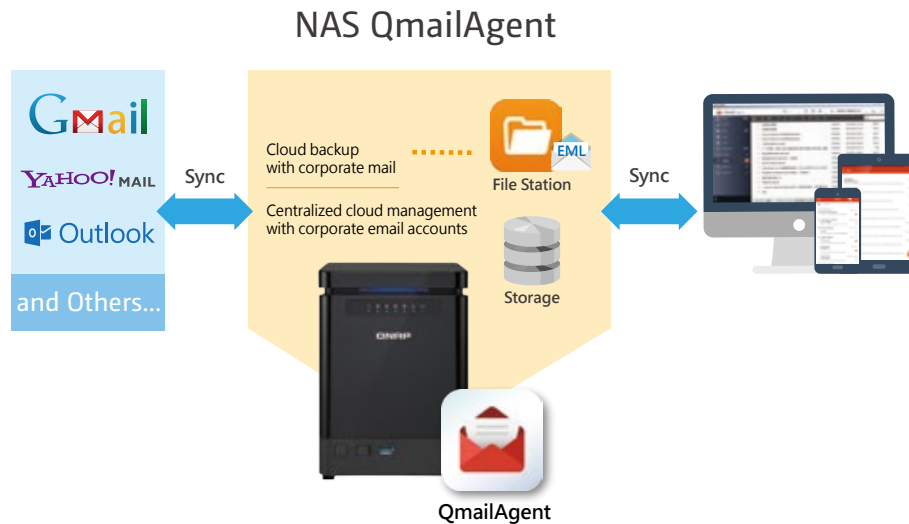
* The Intel processor supports 4K H.264 hardware accelerated decoding. This function must be implemented in software applications, so the actual multimedia playback capability may vary according to the application.



QNAP remote control
(RM-IR002)

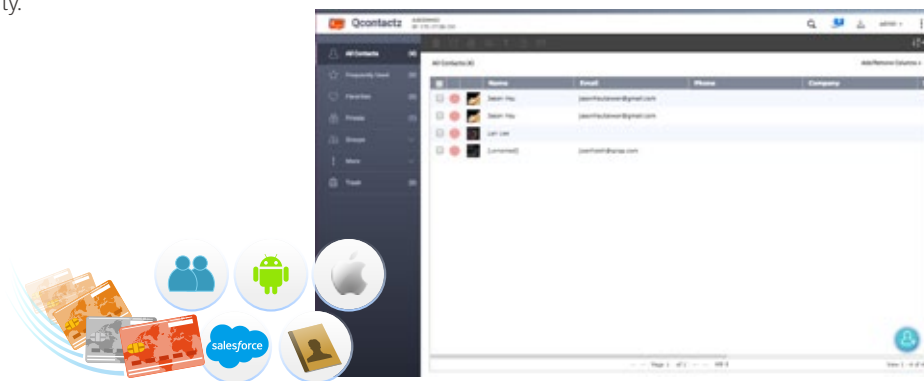
QmailAgent - Centrally manage emails

QmailAgent is an online email client that allows you to centrally manage multiple email accounts. Emails can also be synchronized and backed up to the NAS, providing the ultimate platform for your email needs.



Qcontactz - Manage your contacts database

Qcontactz helps you centralize and manage contact information for all your friends, family and colleagues. It overcomes the storage limits of computers and mobile devices to let you manage millions of contacts with high efficiency. With password protection for private contacts, full encryption options for all your contacts and other security features, Qcontactz can provide unbeatable protection for your contacts list to ensure confidentiality.



Qsirch - A smarter, faster way to search

Qsirch is a full-text search tool for quick file searching, supporting thumbnail previews and even remembering your search history allowing you to quickly navigate to files you've previously searched for. Qsirch Helper, a browser extension for Chrome™ and Firefox®, allows you to search for files on your NAS when you use Google Search. You can use QmailAgent together with Qsirch, which supports searching through the .eml files stored on the NAS, to make searching through and managing massive numbers of emails much easier.



Qfiling - Simplified file organization

Qfiling automates your file organization. All you need to do is categorize your files, set a schedule, and Qfiling will do the rest. After setting up Qfiling, the files in selected folders will be automatically archived into folders for these categories.



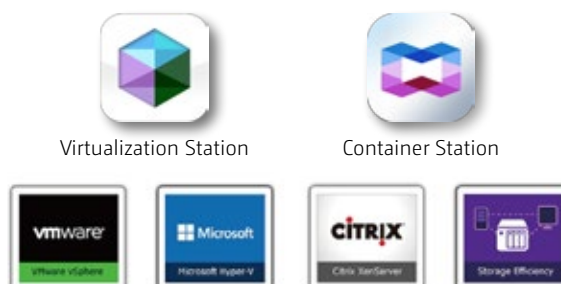
QvPC - Use your NAS as a PC

QvPC Technology integrates various high-end hardware and software technologies that allow you to use your NAS as a PC. All you need to do is connect the TS-453Bmini to a keyboard, mouse and HDMI monitor. This greatly benefits office environments by allowing users to set up a virtual machine (with Windows, Linux, UNIX, or Android) on the TS-453Bmini and to use the NAS as if it was a standalone PC - perfect for guest use, using legacy applications, testing on different operating systems, and more.



Comprehensive virtualization support

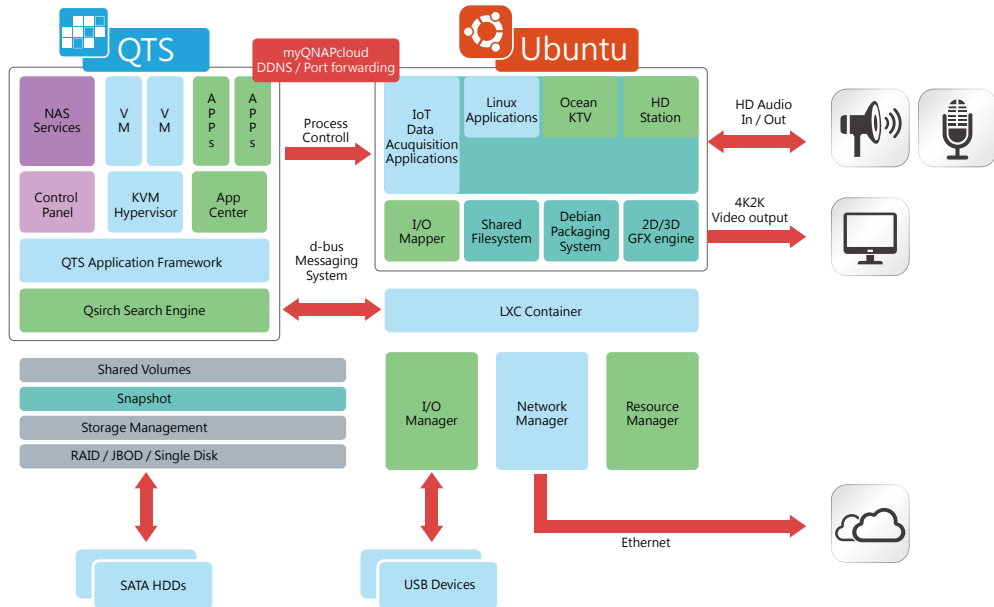
QNAP provides Virtualization Station and Container Station to meet various virtualization needs. Virtualization Station allows users to run complete operating systems (Windows, Linux, UNIX, or Android) on their NAS. This is especially useful for accessing files on the NAS without transferring them across the network, and is also perfect for opening files that cannot be opened by the TS-453Bmini itself. Container Station supports lightweight virtualization platforms like Docker® and LXC (Linux Containers) and is useful for rapid deployment of application service-oriented lightweight virtualization. By sharing the kernel with the host system, users can apply this on various cloud service platforms that support Docker® without installing the operating system.



TS-453Bmini

QTS + Ubuntu dual operating system

QNAP has perfectly integrated QTS and Linux® using advanced virtualization technology. After Linux Station has been set up, you can connect a keyboard, mouse and HDMI monitor to the TS-453Bmini and use it as a standalone Linux computer. Remote desktop functionality is also included for greater convenience.



- ✎ Supports Ubuntu and Ubuntu Kylin.
- ✎ Container Station is required to use Linux Station.
- ✎ Remote Desktop does not currently support audio output.

Cross-platform file sharing, centralized data management

The TS-453Bmini supports SMB/CIFS, NFS and AFP protocols for sharing files and data across different operating systems. Files and data including system logs and CD/DVD ISO image files can be centrally stored and protected for use on various devices. Windows AD® and LDAP support allows IT staff to integrate TS-453Bmini user accounts and passwords directly into Windows AD and LDAP environments. The TS-453Bmini also supports LDAP server functionality, allowing IT staff to significantly reduce the time to create and manage accounts. In addition, the TS-453Bmini can also act as a Windows domain controller.



Centrally manage file backup, recovery and synchronization with Hybrid Backup Sync

Hybrid Backup Sync integrates data backup, recovery and synchronization functions (via RTRR, rsync, FTP, CIFS/SMB protocols) into a single app for easily backing up and synchronizing data from TS-453Bmini to another QNAP NAS, remote server, or cloud service. This can greatly assist in planning data backup and disaster recovery. Supported cloud storage services include: Amazon® Glacier, Azure™ Storage, Google Cloud Storage™, Google Drive™, Microsoft® OneDrive®, Dropbox®, Amazon® Drive, Yandex® Disk, Box®, and Amazon® S3/OpenStack Swift/WebDAV compatible cloud services. Hybrid Backup Sync supports multi-version backup, flexible work scheduling, file compression backup and more.



Instant synchronization with Qsync Central

Qsync Central is an easy-to-use application for storing and synchronizing large volumes of data across multiple devices. Qsync provides a complete file sync solution that helps businesses and organizations ensure that team members always have the most up-to-date files for greater work efficiency.



Smart storage space management

Storage Manager provides snapshot functions for the entire disk volumes and LUN (up to 256 for a single volume or LUN up to 1,024 per device), as well as Snapshot Replica and Clone functions. You can flexibly build storage pools and multiple volumes with RAID protection, and also create thin-provisioned volume, space reclaim and block-level iSCSI LUN to maximize storage space utilization, and simplify NAS space expansion and management of QNAP expansion enclosures.



Comprehensive surveillance solution

Surveillance Station is a professional network surveillance video management system that supports real-time monitoring, video and audio recording and playback with a wide range of customizable settings.

Camera License
4 FREE channels
Up to 40 channels

- Monitor videos in real time
- Playback recordings
- Remote replication
- Supports large capacity HDDs
- ONVIF compliant and quick installation
- Vmobile and Vcam
- Qdewarp
- Live video feeds on HDMI display

Manual Recording, Audio Snapshot, Camera Configuration, ROI, Microphone, Digital Zoom, Camera Information

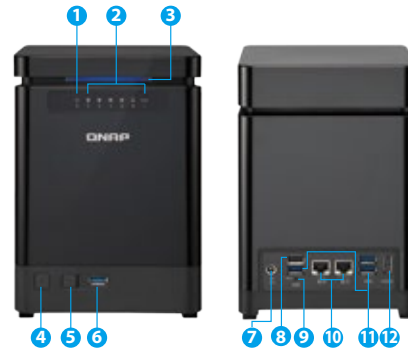
Boost the functionality of your NAS with the dedicated App Center

The App Center has been redesigned to be simpler and easier to use. Search by category, by keyword, or try an app recommended by QNAP. The App Center now supports multiple languages for greater internationalization. Alternatively, view the apps in list mode to get detailed information on the apps.



Turbo NAS TS-453Bmini

- 1 IR Infrared Receiver
- 2 LED Indicators: Status, HDD1-4, LAN, USB
- 3 Skyline LED Indicator
- 4 Power Button
- 5 USB One Touch Backup Button
- 6 USB 3.0 Port



- 7 Power Input
- 8 USB 2.0 Port
- 9 Reset Button
- 10 Gigabit Network Port x 2
- 11 USB 3.0 Port x 3
- 12 HDMI Port

Hardware Specifications

Ordering SKU	TS-453Bmini-8G	TS-453Bmini-4G
CPU	14nm Intel® Celeron® J3455 quad-core 1.5 GHz processor, up to 2.3 GHz	
Encryption Acceleration Engine	✓, AES-NI	
Graphics	9th generation Intel® HD Graphics 500	
System Memory	8GB DDR3L (2 x 4GB)	4GB DDR3L (2 x 2GB)
Maximum Memory	8GB	
Total Memory Slots	2 x SODIMM DDR3L (For dual-DIMM configurations, both DDR3L modules must be identical)	
Drive Type	4 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs	
GbE LAN Ports	2 x Gigabit RJ45 LAN ports	
USB Port	4 x USB 3.0 ports + 1 x USB 2.0 ports	
HDMI Video Output	The maximum resolution is 3840 x 2160 @ 30Hz	
LED Indicators	Power/Status, Network, USB, Hard Disk 1 - 4	
Button	Power, USB one-touch backup button, system reset	
Infrared (IR) Receiver	Supports QNAP RM-IR002, RM-IR004, and other MCE compatible remote controls	
Other Slots	Kensington Security slot, System Maintenance port	
Form Factor	Tower	
Dimension	210 x 151 x 200 mm / 8.27 x 5.95 x 7.87 inches (HxWxD)	
Weight	Net weight: 2 kg (4.41 lbs); Gross weight: 3.4 kg (7.50 lbs)	
Operating Temperature	0 to 35°C (32 to 95°F)	
Relative Humidity	5 ~ 95% RH non-condensing; wet bulb: 27°C (95°F)	
Sound Level	16.9 dB(A) Reference standard: ISO 7779; measured with Bystander Position; Take average running data at one meter in front of the machine	
Power Consumption	Hard disk hibernation: 10.95W/active: 24.32W (with 4 1TB HDDs installed)	
Power	90W AC adapter, 100-240V AC	
Fan	Built-in compact system fan	

Software Specifications

Supported Disk Group Types	Single disk, RAID 0/1/5/6/10/5+spare
Storage Manager	Flexible volume and LUN configuration; storage pools Online RAID capacity expansion and configuration migration
Supported Client Systems	Windows 7/8/8.1/10, Windows Server 2016, macOS, Linux & UNIX
Internal File System	EXT4
External File System	EXT4, EXT3, NTFS, HFS +, FAT32, exFAT (optional exFAT license sold separately)
Supported Protocols	CIFS/SMB, AFP (v3.3), NFS(v3), FTP, FTPS, SFTP, TFTP, HTTP(S), Telnet, SSH, iSCSI, SNMP, SMTP, and SMSC
File Sharing	Maximum number of users: 4096 Maximum number of user groups: 512 Maximum shared folder: 512 Maximum simultaneous connections: 800
Video Surveillance	Includes 4 free IP camera channel licenses. You can purchase additional licenses for up to 40 channels (http://license.qnap.com)
Other Features	Video Station, Download Station, Qsync, Notes Station, HD Station, FTP Server, Print Server, VPN Server/Client, Qfiling Antivirus Protection, Qsirch, Qcontactz, QmailAgent
Streaming Server	DLNA Server, Airplay, Chromecast, iTunes Server
Remote Access	myQNAPcloud

Accessories

Ordering SKU	Product	Ordering SKU	Description
Memory		RAM-2GDR3L-SO-1600	2GB DDR3L-1600 RAM SODIMM memory module
		RAM-4GDR3L-SO-1600	4GB DDR3L-1600 RAM SODIMM memory module
		RAM-8GDR3L-SO-1600	8GB DDR3L-1600 RAM SODIMM memory module
Remote Control		RM-IR002	QNAP Infrared Remote Control (included)

Package Contents

NAS / Quick Installation Guide / Adapter / Power Cord / 2 x GbE Cables / Remote Control

* Model specifications are subject to change without notice. Please refer to www.qnap.com for the latest information.

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