QNAP

High expandability for high productivity

TVS-x73e



Two PCIe Gen3 expansion slots support dual-port 10GbE high-speed network cards, USB 3.1 expansion cards, wireless LAN and SAS 12Gbps storage expansion cards

Supports QM2 expansion cards to add additional M.2 SSD slots for faster storage performance.

AMD R SERIES · AMD RADEON GRAPHICS · dlna · ubuntu · CITRIX ready · Windows Server 2012 Certified · vmware READY

High-performance AMD RX-421BD quad-core 2.1GHz APU (Turbo Core up to 3.4 GHz), up to 64GB RAM and PCIe expandability

USB QuickAccess
Easily set up and access the contents of your NAS by connecting it to your PC/Mac via USB

Build a private cloud
Integrated QmailAgent (email management), Qsirch (NAS full-text search engine), and Qcontactz (contacts manager) with powerful backup and sharing features

2 x M.2 SATA 6Gb/s SSD ports
Install up to two M.2 2280/2260 SATA SSDs for caching or high-speed storage pools.


TVS-473e


TVS-673e


TVS-873e

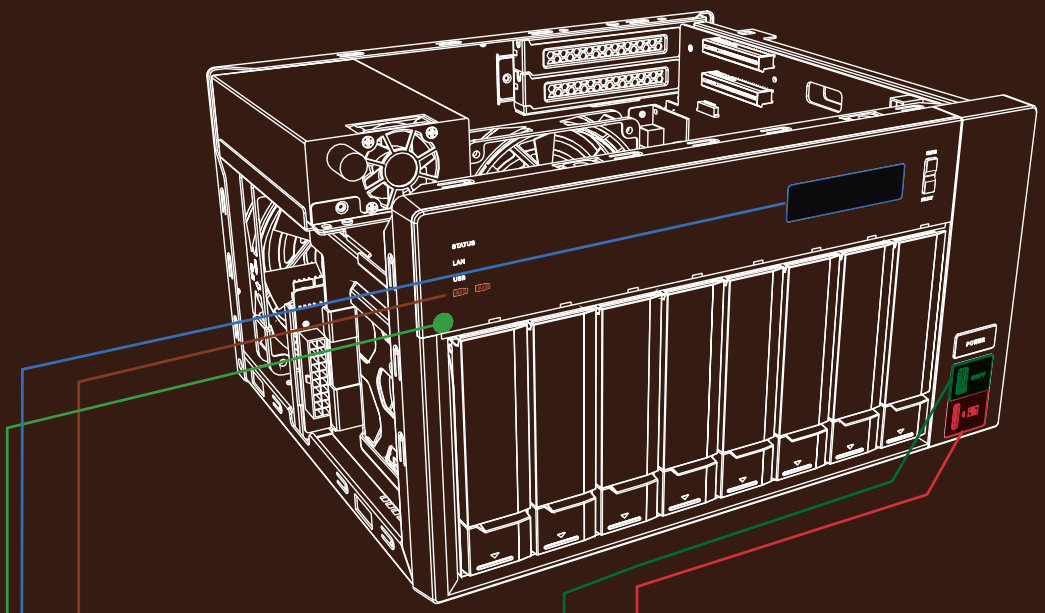
HDMI 4K UHD output

4K 2K UHD Q vPC Technology Use your NAS as a PC

TVS-x73e

Dual PCIe slots for application expansion

Smooth Flagship-grade Performance



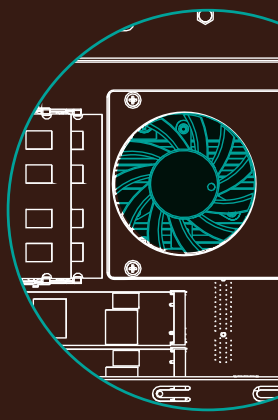
Up to 64G DDR4 RA

· Supports 4x SODIMM memory

2x M.2 SSD sl

· Supports 2280 and 2260 SATA M.2 SSD

· Tiered storage and SSD cachin



01 M.2 SSD status LED

· Displays access status

02 IR Infrared Receiver

· Includes free remote control with customizable buttons

03 USB QuickAccess

· Easily set up and access the contents of your NAS by connecting it to your PC/Mac via USB

04 LCD screen

· Keep track of system status

05 USB One Touch Backup

· Easily back up data with just one button press

2x PCIe e

· PCIe Gen3 x4 h

· Supports 10GbE 3.1 expansion c and SAS expans

2x 3.5mm microphc

· Supports dynamic

Integrate

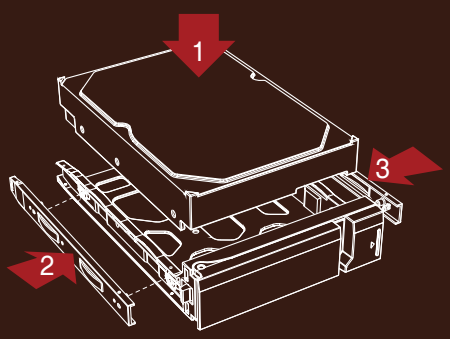
· Music playback

· Provides vocal s

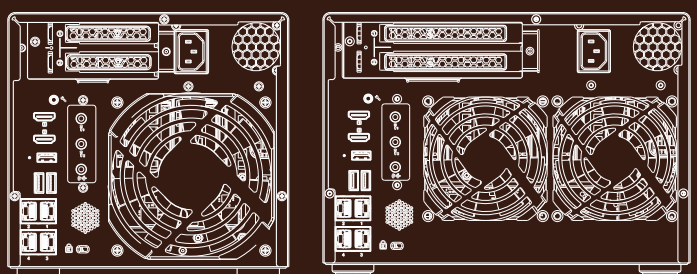
4x 1GbE

· Supports port tr application-dedi

Tool-free installation of 3.5-inch hard drives



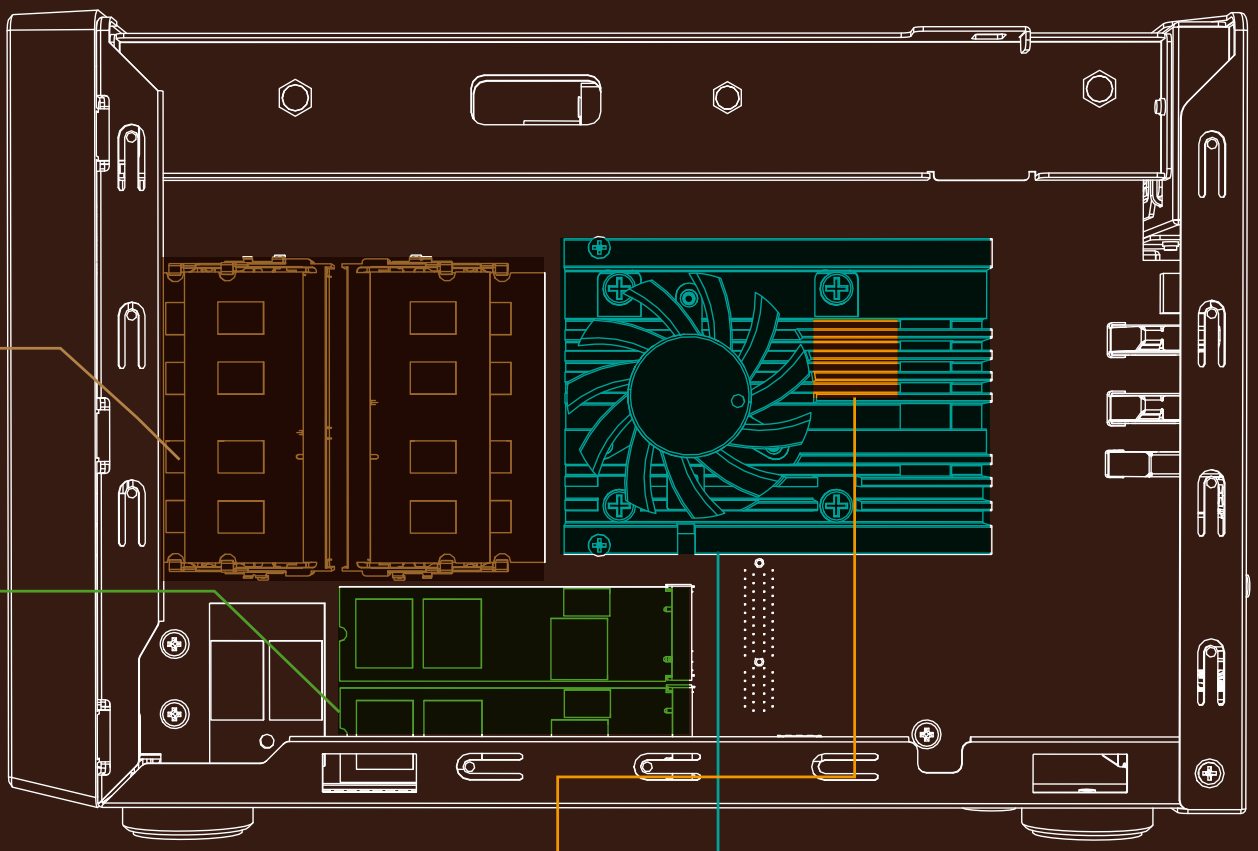
* Also supports screw-mounted 2.5-inch HDD / SSD



TVS-473e

TVS-673e

Side view



GB
AM
slots

ots
6Gb/s
g

03 Up to 3.4 GHz AMD R Series Quad-core Embedded APU

- Low-power quad-core RX-421BD 2.1GHz (Turbo Core up to 3.4 GHz)
- Radeon R7 graphics processor with accelerated video transcoding
- AES-NI hardware encryption engine

04 Compartmentalized smart cooling

- Intelligent separate cooling for the NAS processor and hard drives

05 Dual 4K-capable HDMI output

- HDMI v1.4b, up to 3840 x 2160
- Multi-screen output, supports mirrored and extended display modes

06 3.5mm Line Out jack

- Connect to external speakers for direct audio output

xpansion slots 01
igh-speed interface
E network cards, USB
ards, wireless cards,
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one input jacks 02
microphones

d Speakers 03

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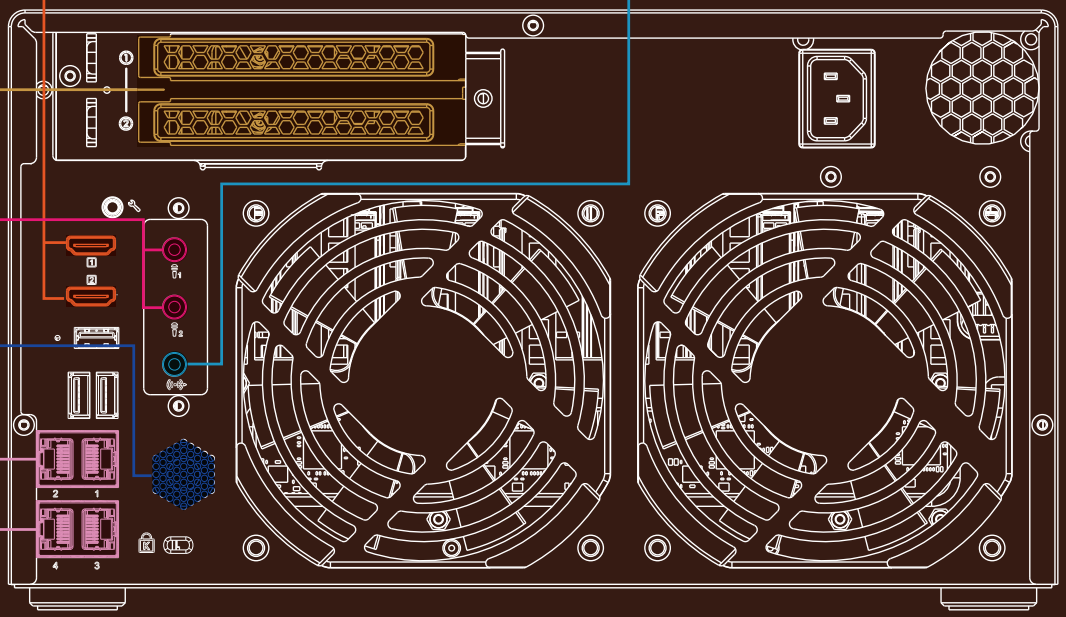


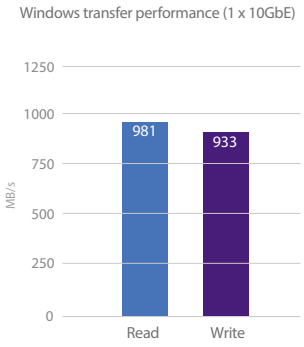
TVS-873e

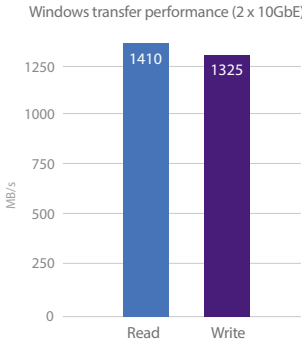
Rear view

Top technology inside

AMD RX-421BD Quad-core APU Up to 64GB DDR4 RAM

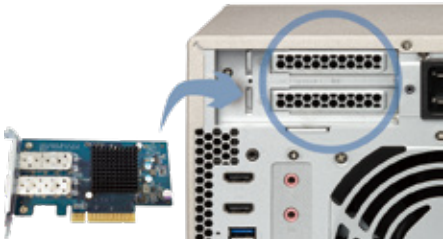
The TVS-x73e features AMD's high-end R-series RX-421BD quad-core 2.1 GHz APU (Turbo Core up to 3.4 GHz), 4GB/8GB DDR4 dual-channel memory (expandable to 64GB), and 4 Gigabit network ports. When used with a 10GbE connection, the TVS-x73e's performance can reach 981 MB/s in both normal and AES 256-bit encrypted transmission.

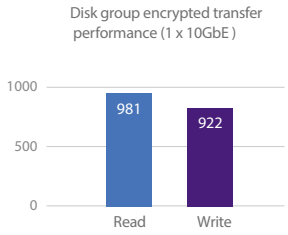




Dual PCIe slots

The TVS-x73e features two PCIe (Gen3 x4) slots and supports the installation of 10GbE network cards to meet the needs of data-intensive applications, or USB 3.1 Gen2 (10Gb/s) expansion cards to add additional USB ports. You can also install a QM2 expansion card or wireless network card to enable diverse applications.



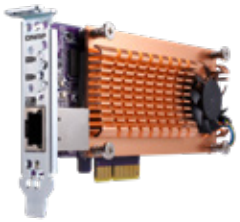


Tested in QNAP Labs. Performance may vary depending on usage environment.

Test environment:
NAS: TVS-873e-8G with QTS 4.3.3
Volume type: RAID 5; 8 x Intel S3500 240GB SSDs (SSDSC2BB240G4)
Client PC:
Intel® Core™ i7-6700 3.40GHz CPU; 32GB RAM; QNAP LAN-10G2T-X550 10GbE NIC; Windows® 10 64-bit; IOmeter 1.1.0

QM2 expansion cards add M.2 SSD and 10GbE connectivity

The QM2 PCIe expansion card allows users to install two additional M.2 SSDs to the TVS-x73e for use in SSD caching or Qtier. This allows users to enjoy the benefits of maximizing the storage efficiency of the TVS-x73e without occupying any of the 3.5-inch drive bays. Certain QM2 models also provide a single 10GbE 10GBASE-T port for providing connectivity to 10GbE networks.



* Note: NAS and QM2 expansion card M.2 SSD are sold separately

Use the TVS-x73e as a wireless base station

By installing a PCIe wireless card in the TVS-x73e and by using the WirelessAP Station app, the NAS is turned into a wireless base station. This allows multiple devices to wirelessly connect to NAS services, and to access the Internet via the NAS. This adds greater functionality to the NAS while consolidating IT infrastructure. As network connectivity from connected devices goes through the NAS, network connectivity is also not impacted by using NAS services or applications.

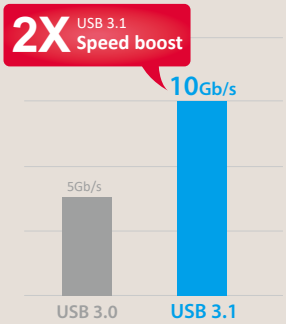
* Check www.qnap.com for a list of compatible PCIe wireless cards.



USB 3.1 10Gbps connectivity

USB 3.1 Gen2 provides transfer rates of up to 10Gb/s* for improved file transfer speeds The TVS-x73e supports USB 3.1 Type-A dual port expansion cards (model: USB-U31A2P01) which supports two USB devices. The Type-A connector is backwards compatible with existing USB 3.0 and USB 2.0 devices. This allows you to quickly transfer files and data from compatible USB devices.

* 10Gbps is the maximum theoretical speed.
Performance may vary due to hardware and software.

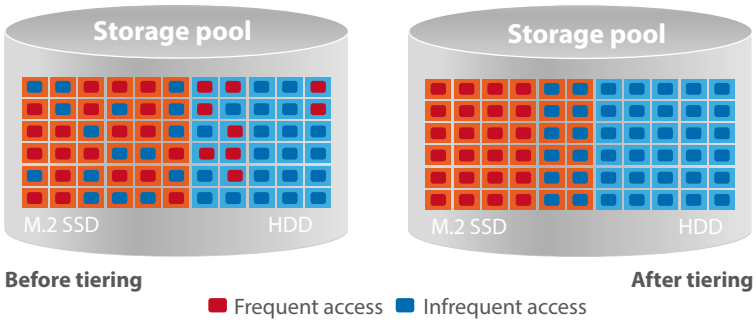


Intuitive and smart

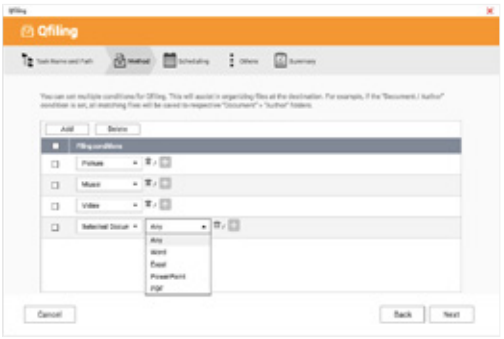
Next-generation QTS 4.3 Operating System

QTS 4.3 provides intelligent agent services with flexible and automated features. Qtier identifies “hot” and “cold” data through self-learning based on data access rates, and Qfiling classifies and organizes files based on preset conditions, providing automatic and efficient file management.

Qtier - Auto-tiered storage



Qfiling - Smart automatic archiving



4K UHD HDMI output for the best audiovisual experience

The TVS-x73e provides dual HDMI output and supports mirrored and extended display modes. The TVS-x73e can also be connected to an AV receiver or HDTV to enjoy 4K videos using HybridDesk Station (HD Station). Simply connect an HDMI display, keyboard and mouse to the TVS-x73e to use it as a PC with Linux Station or QvPC technology.



Linux Station can be installed from the QTS App Center.

To support 4K or multi-channel 1080P H.264 video file conversion/ playback, configure at least 1GB display chip shared memory in the QTS console hardware configuration page. The default shared memory of the display chip is 512 MB.

QButton - Customize your QNAP remote control

The TVS-x73e includes a remote control (RM-IR004) and with QButton you can define the actions of individual buttons. Example actions include viewing a specified channel in Surveillance Station specified monitoring channel, playing music, shutting down or restarting the NAS, or QIoT-related actions. QButton provides a new level of convenience for QNAP NAS.

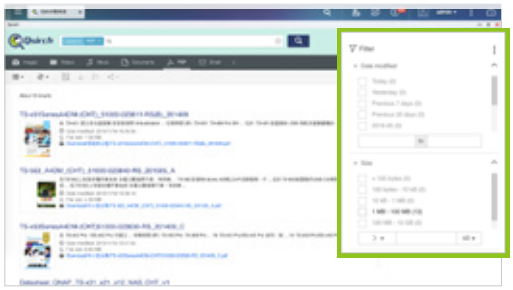




RM-IR004 (optional)

Full text search tool - Qsirch

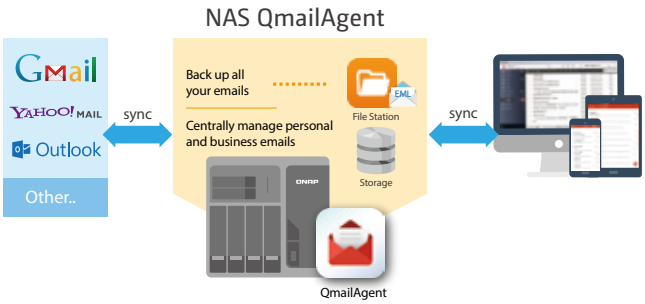
Qsirch offers thumbnail, abstract, keyword annotation and previewing functions; automatically saves your search history; and provides recommended files during your next search. Flexible custom filters allow users to customize their own filtering criteria based on different file types. For example: for photos, the user can choose the camera model, resolution, focal length and other conditions; for music files, the user can choose artist or album name; for documents, the user can choose the author as the filter. It also has a Chrome extension and Firefox add-on that allows users to automatically search for files on their NAS when using the Google search engine.



• Flexible custom filter



• Chrome and Firefox add-on: Qsirch Helper



QmailAgent

QmailAgent allows you to manage multiple email accounts from a single interface. In addition to composing, browsing, and managing emails, you can also directly attach files from the NAS to outgoing emails. QmailAgent can also be used with Qsirch to quickly search through .eml files stored on the TVS-x73e.

QVR Pro
Next-generation surveillance solution

The TVS-x73e is the first QNAP NAS to support the QVR Pro (Beta) surveillance solution. QVR Pro provides a newly-designed user interface, exclusive video storage space capabilities, camera batch addition and modification functions, allowing you to easily manage your surveillance solution.
Surveillance Station is a professional network security monitoring solution offering a user-friendly interface that supports over 3,000 compatible IP cameras and allows you to easily build a professional surveillance center .

Supports Windows®, Mac®, and HD Station.

Surveillance Station 5.1





Centralized backup, recovery, and synchronization management

Hybrid Backup Sync integrates data backup, recovery and synchronization functions (via RTRR, rsync, FTP, CIFS/SMB protocols) into a single application to help you backup or synchronize data from the TVS-x73e to another QNAP NAS, remote server, or cloud storage space.

Volume & LUN Snapshot backup

QTS Storage & Snapshots Manager supports snapshots for powerful backup functionality. A single Volume / LUN can have up to 256 snapshots, and the system supports up to 1,024 snapshots. Snapshots can also be backed up to a remote server using Snapshot Replica.



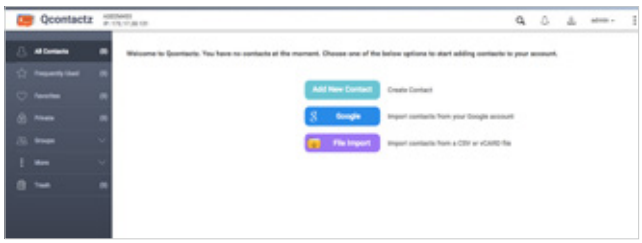


Qsync Central 3.0
Qsync instantly synchronizes data between the NAS and devices

Any file uploaded to your TVS-x73e can be accessed by your desktops, laptops, and mobile devices. Those who are frequently on the move can access the latest files at any time. Qsync allows synchronization of shared folders, team-specific community folders, and remote deletion of files if a connected device is lost.

Protect your contact information with Qcontactz

Qcontactz helps you centralize and manage contact information for friends, family and work partners. More useful features include: CSV and vCARD 3.0 file import / export, automatic identification of common contacts, group and confidential contact settings, smart search and more.



Host multiple virtual machines

Rapidly deploy containerized applications

Virtualization Station allows you to run multiple virtual machines on the TVS-x73e. The virtual switch function allows virtual machines and software containers to share the same network port of the TVS-x73e. Container Station innovatively integrates two lightweight virtualization technologies: LXC and Docker®. You can run a full Linux® virtual machine on TVS-x73e and download thousands of applications from the Docker Hub® online marketplace. Container Station also provides the QIoT Containers platform to help quickly deploy IoT environments and applications in proprietary private clouds. The TVS-x73e also supports VMware®, Citrix®, Microsoft® Hyper-V® and Windows Server® 2012 R2.



Turn your NAS into a karaoke machine with OceanKTV

The TVS-x73e is equipped with two 3.5 mm dynamic microphone jacks for microphones and supports audio output via HDMI and 3.5 mm Line Out. Simply connect the TVS-x73e to an HDMI display to use OceanKTV. Videos can be streamed directly from YouTube™ to help conserve storage space. The OceanKTV Client Mobile app can also be used to remotely control OceanKTV.

Hardware Specifications



TVS-473e



TVS-673e



TVS-873e

Ordering SKU	TVS-873e-8G TVS-873e-4G	TVS-673e-8G TVS-673e-4G	TVS-473e-8G TVS-473e-4G
CPU	Quad-Core AMD® 2.1GHz R-Series RX-421BD 2.1 GHz Processor (Turbo Core up to 3.4 GHz)		
Hardware Encryption Engine	✓ AES-NI		
Pictures	Built-in Radeon™ R7 graphics processor		
System Memory	TVS-873e / TVS-673e / TVS-473e-8GB DDR4 (2 x 4GB) TVS-873e / TVS-673e / TVS-473e-4GB DDR4 (2 x 2GB)		
Maximum Memory	64GB		
Total memory slots	4 x SODIMM DDR4 (Using identical RAM modules is highly recommended for system stability.)		
Flash Memory	512MB DOM		
Drive Type	8 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs	6 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs	4 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs
M.2 SSD slots	2 x M.2 2280/2260 SATA 6Gb/s slots		
1GbE LAN ports	4 x 1 Gigabit RJ45 LAN ports		
PCIe slots	2 x PCIe Gen3 x4. Supports 10GbE network expansion card, USB 3.1 expansion card, wireless LAN, and SAS expansion card		
LCD Panel	Monochrome backlight LCD panel, Confirm button, Select button		
USB	4 x USB 3.0 Type-A ports		
HDMI output	2 (Maximum resolution of 3840 x 2160 @ 30Hz)		
LED Indicators	Status/Power, USB · LAN, Drive 1-8 · M.2 SSD 1-2	Status/Power, USB · LAN, Drive 1-6 · M.2 SSD 1-2	Status/Power, USB · LAN, Drive 1-4 · M.2 SSD 1-2
Buttons	Power / status, USB one-touch backup, system reset		
Infrared (IR) receiver	✓ Supports QNAP RM-IR004		
Other slots	Kensington Security Slot, System Maintenance port		
Form Factor	Desktop model		
Dimensions (HxWxD)	188.2 x 329.3 x 279.6 mm 7.41 x 12.96 x 11.01 inch	188.2 x 264.3 x 279.6 mm 7.41 x 10.4 x 11.01 inch	188.2 x 199.3 x 279.6 mm 7.41 x 7.85 x 11.01 inch
Net Weight	6.52 kg / 14.37 lbs	5.63 kg / 12.41 lbs	4.9 kg / 10.80 lbs
Operating temperatures	0 ~ 40°C		
Relative Humidity	5 ~ 95% RH non-condensing; wet bulb: 27°C		
Power	ATX Power Supply, 250W, 100-240V AC, 50-60Hz, 3.5A		
Cooling	2 x 12cm	2 x 9cm	1 x 12cm

Package Contents

NAS, Quick Installation Guide, Power Cord, 2 Network Cables, M.2 SSD Installation Tools

Software Specifications

Supported disk group types	Single disk, RAID 0/1/5/6/10, hot spare
Storage & Snapshots Manager	Flexible volume and LUN configuration; storage pools Online RAID capacity expansion and configuration migration
Supported clients Systems	Windows 7/8/8.1/10, Windows Server 2012 R2, 2016, Apple Mac OS X 10.7+, Linux & UNIX
Internal file system	EXT4
Supported external file systems	EXT4, EXT3, NTFS, HFS+, FAT32
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 folders: 512; Maximum simultaneous connections: 1000
Video surveillance	Includes 4 free camera channel licenses. You can purchase additional licenses to expand to a maximum of 72 groups (http://license.qnap.com)
Other Features	File Station, Photo Station, Music Station, Video Station, Download Station, Qsync, Notes Station, HD Station, FTP Server, Print Server, VPN Server/Client, Qtier, Antivirus Protection, Qsirch, Qcontactz, QmailAgent, QButton, Qfiling
Multimedia streaming	DLNA Server, Airplay, Chromecast, iTunes Server
Video playback and conversion	Hardware-based video transcoding for 4K H.264 video s
Remote access	myQNAPcloud

Accessories

Type	Ordering SKU	Description
Expansion Unit	UX-800P	QNAP 8-bay expansion unit
	UX-500P	QNAP 5-bay expansion unit
Memory	RAM-4GDR4K0-SO-2133	4GB DDR4 2133MHz SODIMM RAM
	RAM-8GDR4K0-SO-2133	8GB DDR4 2133MHz SODIMM RAM
	RAM-16GDR4K0-SO-2133	16GB DDR4 2133MHz SODIMM RAM
M.2 SSD	SSD-M2080-256GB-A01	256GB M.2 SATA 6Gb/s SSD
Network Adapter Card	LAN-10G2T-X550	Dual-port 10GbE 10GBASE-T NIC
	LAN-10G1TA	Single-port 10GBASE-T NIC
	LAN-10G1SR	Single-port 10GbE SFP+ NIC
	LAN-1G2T-I210	Dual-port GbE RJ45 NIC
QM2 expansion card	QM2-2S	Dual Port M.2 22110/2280 SATA SSD Expansion Card
	QM2-2P	Dual Port M.2 22110/2280 PCIe NVMe SSD Expansion Card
	QM2-2S10G1T	Dual-port M.2 2280 SATA SSD including a single-port 10GbE expansion card
	QM2-2P10G1T	Dual-port M.2 2280 PCIe NVMe SSD including a single-port 10GbE expansion card
Miscellaneous	USB-U31A2P01	USB 3.1 dual-port PCIe expansion card
	SAS-12G2E	SAS 12Gb/s expansion card
	CAB-SAS10M-8644	1 meter length mini SAS cable
	CAB-SAS05M-8644	0.5 meter length mini SAS cable
	QWA-AC2600	4 x 4 AC2600 PCIe Wireless LAN Card

•Please visit www.qnap.com for more hardware and software specifications.
Design and specifications are subject to change without notice.

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