

QNAP TS-H973AX NAS Tower Ryzen Embedded V1500B 32 GB DDR4 0 TB QuTS hero Black

Gamintojas: **QNAP** · Modelis: **TS-H973AX-32G** · EAN: **4713213518663** · Prekės kodas: **578321**



2 084,90 €

Kaina su PVM

Be PVM: **1 723,06 €**

Neturime



Prekė internetu

Nuskenaukite kodą arba apsilankykite www.shopro.lt

Pagrindinės savybės

- ✓ Install high-performance U.2 NVMe PCIe Gen 3 x4 SSDs or SATA 6Gb/s SSDs in the dedicated SSD slots for cache acceleration and improved random I/O
- ✓ One 10GBASE-T Multi-Gig and two 2.5GbE LAN ports accelerate virtualization, intensive file access, large backup/restoration tasks, and media transfer
- ✓ Experience a business-class backup center, supporting backup/restore of cloud data and VMs (including Google™ Workspace, Microsoft 365®, VMware® and Hyper-V)
- ✓ Host multiple virtual machines and containers to run a wide range of applications on the TS-h973AX
- ✓ Cloud storage gateways realize hybrid cloud applications by working with the cache space reserved on NAS to ensure low-latency data access to the cloud
- ✓ Flexibly scale your total storage capacity to match your business growth by connecting USB expansion enclosures (TR series JBOD)



Aprašymas

Enhance business productivity using the quad-core 9-bay QuTS hero NAS that supports U.2 NVMe SSD and 10GbE/2.5GbE connectivity

Featuring an AMD Ryzen™ V1000 series V1500B quad-core processor and 10GbE/2.5GbE connectivity, the 9-bay TS-h973AX packs a high-capacity hybrid storage infrastructure into a compact physical footprint. With five 3.5-inch SATA 6Gbps drive bays, two 2.5-inch U.2 NVMe SSD slots (Slot 1 &

2 support both U.2 NVMe and SATA SSDs), and two 2.5-inch SATA 6Gbps SSD slots, the TS-h973AX can benefit from SSD caching to boost IOPS-intensive applications. With the ZFS-based QuTS hero operating system, the

Optimized SSD performance and lifespan

Install high-performance U.2 NVMe PCIe Gen 3 x4 SSDs or SATA 6Gb/s SSDs in the dedicated SSD slots for cache acceleration and improved random I/O.

10GbE/2.5GbE connectivity

One 10GBASE-T Multi-Gig and two 2.5GbE LAN ports accelerate virtualization, intensive file access, large backup/restoration tasks, and media transfer.

SaaS backup and recovery

Experience a business-class backup center, supporting backup/restore of cloud data and VMs (including Google™ Workspace, Microsoft 365®, VMware® and Hyper-V).

Virtualization applications

Host multiple virtual machines and containers to run a wide range of applications on the TS-h973AX.

Cloud storage gateway

Cloud storage gateways realize hybrid cloud applications by working with the cache space reserved on NAS to ensure low-latency data access to the cloud.

Flexible storage expansion

Flexibly scale your total storage capacity to match your business growth by connecting USB expansion enclosures (TR series JBOD).

Absolute performance with AMD Ryzen™ and up to 64 GB RAM

Powered by an AMD Ryzen™ Embedded V1000 series V1500B 4-core/8-thread, 2.2 GHz processor with up to 64 GB DDR4 RAM (ECC memory is supported)*, the TS-h973AX delivers aggressive yet power-smart performance for compute-demanding applications. AES-NI encryption support boosts encryption performance while also maintaining the security of your NAS data. SSDs can be flexibly installed for cache acceleration to maximize network and storage performance for data-intensive applications.

Dual U.2 NVMe PCIe Gen 3 x4 SSD slots for optimal I/O and low latency

The TS-h973AX has four 2.5-inch SSD slots - with slots 1 & 2 supporting both high-performance U.2 NVMe PCIe Gen 3 x4 SSDs or economical SATA 6Gb/s SSDs. For tackling latency-sensitive applications, you can take advantage of U.2 NVMe PCIe Gen 3 x4 SSDs that supply up to 32Gb/s bandwidth to attain optimized performance and efficiency. You can also use QNAP's QDA adapter to replace U.2 NVMe SSDs with cost-efficient M.2 NVMe SSDs to maintain high-level performance while saving more costs.

SSD cache acceleration

Increases IOPS performance and reduces latency for storage volumes - perfect for IOPS-demanding applications including virtualization and databases.

Write Coalescing

Transforms all random writes to sequential writes along with reduced I/O, effectively increasing SSD write performance.

Pool Over-provisioning

Flexibly reserves a dedicated space in an SSD storage pool to allow new data to be written into a complete block even if the pool is almost full, thus improving the performance of fragmented pools.

Leverage the M.2 PCIe NVMe SSD to U.2 Adapter

Install one or more QDA adapter in the TS-h973AX (Slot 1 and Slot 2) to maximize PCIe bandwidth utilization in a cost-effective way by using M.2 PCIe NVMe SSD instead of the U.2 SSD for optimizing data-intensive applications. It can also boost IOPS performance when configuring SSD caching.

Users can monitor drive health and manage SSD usage from the QTS Storage & Snapshots Manager. The M.2 SSD installed in the QDA adapter is hot swappable.

Streamline large file transfers and video editing with 10GbE and 2.5GbE

The TS-h973AX has one 10GBASE-T Multi-Gig (10G/5G/2.5G/1G/100M) port and two 2.5GbE RJ45 (2.5G/1G/100M) ports, providing out-of-the-box support for high-speed networking and supporting Port Trunking and Failover to reinforce your network infrastructure. QNAP also provide many other high-speed networking solutions, including 10GbE/2.5GbE managed/unmanaged switches, 2.5GbE/5GbE/10GbE PCIe cards and USB 5GbE adapters for Windows®/Linux® workstations, allowing you to build a budget-friendly high-speed network environment for productive team collaboration.

ZFS-based QuTS hero operating system enhances NAS performance and data integrity

QuTS hero combines the app-based QTS with the 128-bit ZFS file system to provide flexible storage management, comprehensive data protection, and optimized performance to tackle the complexity and performance demands of modern IT. From storage management, virtualization, to collaborative media workflows, QuTS hero streamlines your business-critical tasks.

Data integrity is key

QuTS hero's self-healing ensures data integrity and reliability. Write Once, Read Many (WORM) is also supported.

Data reduction improves storage efficiency and performance

Inline data deduplication, compression, and compaction reduce file size to conserve storage capacity and optimize performance.

Multi-level cache technology

Main memory read cache (L1 ARC), SSD second-level read cache (L2 ARC), and ZFS Intent Log (ZIL) for synchronous transactions with power fail protection are simultaneously supported to boost performance and security.

RAID Z enables robust data protection

Multiple RAID levels allow flexible capacity utilization. RAID Triple Parity and Triple Mirror deliver higher levels of data protection.

QSAL (QNAP SSD Antiwear Leveling) enhances data protection

RAID-level SSD lifespan is automatically and regularly detected to prevent simultaneous SSD failure, improving your data protection and system reliability.

App Center ecosystem extends NAS functionality

Apps for backup/sync, virtual machines/containers, content management, productivity, and more features can be used to expand the application potential of the TS-h973AX.

Inline data deduplication, compression, and compaction drives big data storage efficiency

QuTS hero supports advanced block-based data reduction technologies (including inline data deduplication*, compression, and compaction) to reduce file sizes, conserve storage capacity, and optimize performance. For example, if 20 virtual machines on a NAS are replicated using the same template, then storage space requirements for all 20 virtual machines can be reduced by up to 95%. Whether acting as primary or backup storage, the TS-h973AX optimizes storage utilization to provide a reliable storage cornerstone in the Big Data era.

Real-time SnapSync ensures minimal RPO with real-time disaster recovery

Real-time SnapSync ensures that both the primary and secondary NAS maintain identical data. When data is written to the source, it is immediately written to the destination. If the primary NAS goes offline, IT staff can simply adjust the privilege settings of the secondary NAS to ensure continuous operations. SnapSync provides the strongest support for nonstop business operations and helps users to reduce the risk of data loss.

Snapshots multiply backup protection

Attain peace of mind with near-limitless, instant snapshots. Copy-on-write technology makes snapshot creation almost instantaneous without affecting ongoing data writing. Snapshot Replica replicates snapshot files to the backup NAS, simplifying data protection with version control.

HBS simplifies 3-2-1 backup plans

HBS centralizes backup, restoration, and synchronization for easily transferring data in the TS-h973AX to another QNAP NAS, remote server, or cloud storage space. HBS supports QuDedup technology that eliminates redundant data at the source and makes multi-version backup faster.

All-in-one virtual machine and container hosting solution

You can count on Virtualization Station and Container Station for comprehensive virtualization support. Coupled with the Network & Virtual Switch app that boosts interoperability between virtual machines, containers, QNAP NAS, and other physical devices on the network, you can flexibly allocate physical and virtual network resources to simplify network deployment.

Virtualization Station

Run multiple Windows®, Linux®, UNIX®, and Android™ virtual machines and access them via a web browser or Virtual Network Computing (VNC). Businesses can run virtualized server applications on a single NAS without the need for additional physical servers.

Container Station

Experience LXC and Docker® lightweight virtualization technologies, download apps from the built-in Docker Hub Registry®, import and export containers, and create abundant microservices.

License-free VMware® and Hyper-V backup appliance

With Hyper Data Protector, the TS-h973AX becomes an agentless backup tool for unlimited VMware® vSphere and Microsoft® Hyper-V VM backup. Hyper Data Protector features incremental backup, global deduplication, backup scheduling and recovery compression. Hyper Data Protector also simultaneously backs up multiple VMs, providing you with a cost-effective and reliable disaster recovery plan, ensuring 24/7 operation of your services.

More productivity applications

Ubuntu Linux Station

Run Ubuntu® applications (including apps from the Ubuntu Software Center) directly on the TS-h973AX and remotely access the Ubuntu® desktop from a web browser.

Security Counselor

A security portal for checking weaknesses and receiving recommendations for enhancing NAS security. It also integrates anti-virus and anti-malware scanning software.

Boxafe

Safeguard enterprise cloud data by backing up/syncing files, emails, calendars and contacts from Google™ Workspace and Microsoft® Office 365® to the TS-h973AX.

Qsirch

QNAP's powerful, Google-like search tool helps you quickly find images, music, videos, documents, and emails by keywords, color, and more search conditions. It also supports Qfiling to perform one-time or automatic archival tasks based on your search criteria.

QuMagie

An AI-powered photo management app, supporting automated photo categorization with AI Albums, iOS® Live Photo display, and powerful search tool for ultimate photo management and sharing solution.

HybridMount

Perfectly integrates NAS with mainstream cloud services. By deploying cloud storage gateways and enabling local caching on the NAS, you can seamlessly use the cloud for storage, backup, and data recovery with low-latency access.

Flexible and economical storage expansion

The storage capacity of the TS-h973AX can be expanded using USB-based expansion enclosures. Two QNAP TR RAID (4-bay TR-004, 2-bay TR-002) can be easily attached and managed using the Storage & Snapshots Manager app.

Subscribe to QVR Elite surveillance solution for 24/7 security

QVR Elite is QNAP's subscription-based smart surveillance solution, allowing you to easily build a surveillance system with lower TCO and higher scalability. You can arrange a dedicated, independent storage space for surveillance data on the TS-h973AX and enjoy simplified camera management, storage space allocation, camera live viewing and playback. Recordings are saved as MP4 files, allowing playback on nearly every device. QVR Elite also integrates QNAP AI-based solutions to build smart facial recognition for retail and door access systems with QNAP NAS. With QVR Pro Client software installed on your Windows®/Mac® or mobile devices, taking full control over monitored areas becomes more convenient and easier.

Techninė specifikacija

Specifications	
Sandėlio grupė	Komponenten & Zubehör > Gehäuse [+967][-10231]
Storage	
Storage drives installed	No
Total installed storage capacity	0 TB
Number of storage drives installed	0
Number of storage drives supported	9
Installed storage drive type	No
Supported storage drive types	HDD & SSD
Storage drive capacity	0 GB
RAID support	Yes
Supported storage drive interfaces	Serial ATA II, Serial ATA III, U.2
Storage drive sizes supported	2.5,3.5"
RAID levels	0, 1, 5, 6, 10, 50, 60, JBOD
Online RAID expansion	Yes
RAID rebuild	Yes
Hot-swap drive bays	Yes
Supported file systems	FAT32, HFS+, NTFS, ZFS, exFAT, ext3, ext4
Disk roaming	Yes
Processor	
Processor family	Ryzen Embedded
Processor manufacturer	AMD
Processor model	V1500B
Processor frequency	2.2 GHz
Processor generation	AMD Ryzen Embedded V1000 Series
Processor cores	4
Processor threads	8

Memory

Internal memory	32 GB
Internal memory type	DDR4
Maximum RAM supported	32 GB
Memory slots	2
Memory form factor	SO-DIMM
Flash memory	5000 MB

Network

Ethernet LAN	Yes
Ethernet LAN data rates	100,1000,2500,5000,10000 Mbit/s
Ethernet LAN data rate supported (max)	10000 Mbit/s
Copper ethernet cabling technology	10GBASE-T
DHCP client	Yes
DHCP server	Yes
Jumbo frames support	Yes
iSCSI support	Yes
Wake-on-LAN ready	Yes
Supported network protocols	IPv4, IPv6
Link aggregation	Yes
Load balancing system	Yes
Dynamic DNS (DDNS)	Yes

Ports & interfaces

Ethernet LAN (RJ-45) ports	3
USB port	Yes
USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity	3
USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	1
Concurrent connections	2000

Design

Chassis type	Tower
Cooling type	Active
Product colour	Black
Number of fans	1 fan(s)
Fan diameter	14 cm
Drive bay locking	Yes

LED indicators	HDD, LAN, Power, SSD, Status, USB
Cable lock slot	Yes
Cable lock slot type	Kensington
Performance	
Type	NAS
Device class	Small & Medium Business
Backup function	Yes
Backup features	Cloud, iSCSI LUN
Buzzer	Yes
Multilingual support	Yes
Noise level	22.9 dB
Third-party support	Yes
Snapshot	Yes
Security algorithms	256-bit AES, HTTPS, SSH
Access Control List (ACL)	Yes
Reset button	Yes
On/off switch	Yes
Built-in FTP server	Yes
Browser supported	Apple Safari, Google Chrome, Microsoft Internet Explorer, Mozilla Firefox
System log	Yes
Hot spare	Yes
Password authentication	Yes
Disk scan	Yes
S.M.A.R.T. support	Yes
Share folder	AFP, CIFS/SMB, FTP, WebDAV
USB copy function	Yes
Software	
Operating system installed	QuTS hero
Operating system version	h5.0.0
Windows operating systems supported	Windows 10, Windows 10 Education, Windows 10 Education x64, Windows 10 Enterprise, Windows 10 Enterprise x64, Windows 10 Home, Windows 10 Home x64, Windows 10 IOT Core, Windows 10 Pro, Windows 10 Pro x64, Windows 10 x64, Windows 11, Windows 11 x64, Windows 7, Windows 7 Enterprise, Windows 7 Enterprise x64, Windows 7 Home Basic, Windows 7 Home Basic x64, Windows 7 Home Premium, Windows 7 Home Premium x64, Windows 7 Professional, Windows 7 Professional x64, Windows 7 Starter, Windows 7 Starter x64, Windows 7 Ultimate, Windows 7 Ultimate x64, Windows 7 x64, Windows 8, Windows 8 Enterprise, Windows 8 Enterprise x64, Windows 8 Pro, Windows 8 Pro x64, Windows 8 x64

Linux operating systems supported	CentOS 7.0, SuSE Linux 12.0, SuSE Linux 12.3, SuSE Linux 15, Ubuntu 14.04, Ubuntu 14.10, Ubuntu 15.04, Ubuntu 15.10, Ubuntu 16.04, Ubuntu 16.10, Ubuntu 17.10, Ubuntu 18.04 LTS, Ubuntu 20.04 LTS
Mac operating systems supported	Mac OS X 10.10 Yosemite, Mac OS X 10.11 El Capitan, Mac OS X 10.12 Sierra, Mac OS X 10.13 High Sierra, Mac OS X 10.14 Mojave, Mac OS X 10.15 Catalina, Mac OS X 10.15.3 Catalina, Mac OS X 10.7 Lion, Mac OS X 10.8 Mountain Lion, Mac OS X 10.9 Mavericks, Mac OS X 11.0 Big Sur
Server operating systems supported	Windows Server 2003, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, Windows Server 2019
Other operating systems supported	IBM AIX 7.1, IBM AIX 7.2, Solaris 10, Solaris 11
Power	
Power supply location	External
Power supply unit (PSU) capacity	120 W
Number of power supply units	1
Power consumption (typical)	55.41 W
Power consumption (HDD standby)	41.2 W
AC input voltage	100 - 240 V
Fan voltage	12 V
Weight & dimensions	
Width	224.6 mm
Depth	224.1 mm
Height	182.7 mm
Weight	3.52 kg
Package width	524 mm
Package depth	402 mm
Package height	358 mm
Package weight	5.35 kg
Packaging content	
External power adapter	Yes
Cables included	AC, LAN (RJ-45)
Power cables quantity	1
Quick installation guide	Yes
Number of screws	56
Drive tray key included	Yes
Package type	Box
Operational conditions	
Operating temperature (T-T)	0 - 40 °C

Operating relative humidity (H-H)	5 - 95%
Storage temperature (T-T)	-20 - 70 °C
Storage relative humidity (H-H)	5 - 95%

Logistics data

Harmonized System (HS) code	84714100
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Other features

Warranty period	3 year(s)
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