NS-QTS431X

QNAP TS-431X 4-Bay Network Attached Server

Product Overview

Qnap TS-431X multi-bay NAS (support raid 0/1/5/6/10/JBoD) - 4x hot-swappable SATA 2.5"/3.5" - with Alpine AL-212 dual-core 1.7 GHz ARM Cortex-A15 processor, 2Gb DDR3 so-dimm (up to 8Gb) + 512mb flash, AES 256-bit encryption, QTS software with app center + Qmobile apps, cross-platform sync+share, one-touch backup button, NAS management tools (alerts, resource monitor, WoL, scheduled power, S.M.A.R.T + advanced HHS, logs); 2x Gigabit + 1x 10Gigabit + 3x USB3 (Gen1 5GBPs), with 120mm fan



Specifications

Overview:

The TS-431X supports 4 hard drives and comes with a built-in 10GbE SFP+ port for rigorous data processing, providing a cost-effective storage solution for demanding everyday business tasks. Powered by the QTS operating system, the TS-431X provides versatile all-in-one server functionalities and unique features including Container Station, which facilitates Internet of Things (IoT) development, and VJBOD (Virtual JBOD), which allows for expanding NAS capacity with another NAS. The TS-431X is an ideal entry-level NAS for businesses looking for backup, restoration, private cloud, storage for virtualization, and to future-proof their IT infrastructure for 10GbE networks.

Features:

High performance dual-core CPU with hardware encryption engine
The TS-431X is equipped with a dual-core AnnapurnaLabs, an Amazon company Alpine AL-212 1.7 GHz processor and 2GB/8GB DDR3 RAM (upgradable to 8GB). Coupled with SATA 6Gb/s, one 10GbE SFP+ LAN port and two Gigabit LAN ports, the TS-431X delivers up to 956 MB/s throughput. Supporting AES 256-bit volume-based data encryption, the TS-431X provides excellent encrypted speeds of up to 312 MB/s, boosting system performance & security while ensuring the safety of sensitive business data stored in the NAS.

10GbE-ready with built-in 10GbE SFP+ port
The TS-431X not only provides two inbuilt Gigabit Ethernet ports but also one 10GbE SFP+ port to fully support 10GbE high-speed networks, capable of delivering lightning-fast throughput for businesses that demand higher bandwidth for virtualization and fast backup & restoration for an ever-growing amount of data.

SSD cache acceleration
The TS-431X supports SSD caching for all four drives to greatly boost the IOPS performance of storage volumes and increase

operational efficiency. It is perfect for improving the overall workflow of IOPS-demanding applications and allows the best of both cost and performance by combining SSDs with HDDs.

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Simplify email management with QmailAgent
Managing massive amounts of emails can be easier as QmailAgent helps you centrally manage and switch between different email accounts. Besides composing, reading and organizing emails, you can even directly attach files from the TS-431X when composing emails. The QmailClient companion app for iOS® or Android™ works alongside QmailAgent to provide convenient access to multiple email accounts from your mobile devices. You can use QmailAgent together with Qsirch, which supports searching through the .eml files stored on the TS-431X; or quickly send emails to people and groups by using the Qcontactz app.

Take, store, share, and collaborate on notes with Notes Station
Notes Station helps organize notes for your personal and working life. You can easily edit text, insert images/files from the NAS, fine-tune images with the image-editing tool, create sharing links to share notes, backup/restore your notes with snapshots, and ensure privacy with password protection and encryption. You can also invite people to collaborate on notes for greater teamwork! Notes Station provides a safe and convenient way of taking notes that are fully under your control on your TS-431X's private cloud.

Use NAS to expand other NAS capacity with VJBOD
Besides using physical storage expansion enclosures, there is an additional option to expand NAS storage capacity. QNAP VJBOD (Virtual JBOD) is network-based JBOD, allowing you to expand the storage of a QNAP NAS with multiple QNAP NAS units. The TS-431X supports VJBOD to economically expand the storage capacity of other QNAP NAS with its unused storage, and you can simply create virtual storage pools and volumes on the virtual disks for operating NAS services.

QTS 4.3 - The most intelligent and intuitive NAS operating system
QTS enhances management efficiency, personal productivity, multimedia, and much more. New intelligent agent services have also been added to simplify system operations and management. QTS features an intelligent desktop allowing you to find desired functions quickly, monitor important system information on a real-time basis, and open multiple application windows to run multiple tasks concurrently, bringing greater working efficiency. The built-in App Center provides various install-on-demand apps to extend NAS functionality. QTS breaks the barriers of devices, platforms, and geography to bring optimized cloud experiences and incorporates advanced features.

Secure access with VPN Server & VPN Client
The new QVPN app integrates settings for VPN server and VPN client, and allows the TS-431X to be used as a VPN server with L2TP/IPsec, OpenVPN, and PPTP support, allowing you to securely access data shared within private local networks. It can also be used as a VPN Client to connect to other VPN servers (connecting multiple servers at the same time is possible) or virtual private networks through PPTP and OpenVPN for secure data transmission. You can connect devices to your NAS and the VPN server at home to access data on the LAN; via VPN Client on your NAS, for example, you can connect to VPN servers in foreign countries for accessing regionally-restricted services.

Optimized collaboration with cross-platform file sharing and sync
The TS-431X centrally stores data, logs and various files, and supports SMB/CIFS, NFS, and AFP protocols for file sharing across Windows®, Mac®, Linux®/UNIX® networks. Coupled with Qsync - a utility that turns a QNAP NAS into a safe, high-capacity data center for file synchronization - any file uploaded to the TS-431X will be made available for all linked devices, such as computers, laptops or mobile devices. You can sync shared folders and team folders for group file sharing, greatly enhancing the flexibility of team projects and collaboration.

Well-rounded backup & disaster recovery solutions
The TS-431X offers flexible backup solutions for Windows® and Mac® users. It also supports Hybrid Backup Sync that consolidates backup, restoration and synchronization functions (using RTRR, rsync, FTP, CIFS/SMB) for easily transferring data to local, remote and cloud storage spaces as a comprehensive data storage and disaster recovery plan. Supported cloud services include Amazon® Glacier, Azure™ Storage, Google Cloud Storage™, Google Drive™, Microsoft® OneDrive® for Business, Dropbox®, Amazon® Drive, Yandex® Disk, Box®, hubiC® and Amazon® S3/OpenStack Swift/WebDAV compatible services.

Comprehensive security to protect your data
In open network environments, business data may be exposed in a potential hack. The TS-431X provides numerous security options, such as antivirus, encrypted access, IP blocking, 2-step verification, and more. IT administrators can also control the access rights of each user to different folders, preventing unauthorized access to important files. The TS-431X supports AES 256-bit encryption, preventing sensitive business data from unauthorized access and breach even if the hard drives or the entire system were stolen. Windows AD server, LDAP server, and built-in LDAP service are also supported.

Qsirch - a smarter, faster way to search
The TS-431X supports Qsirch, a proprietary search engine for quickly finding files. In addition to previewing files with thumbnails, content abstract and keyword hints, Qsirch allows you to search through .eml files stored on the TS-431X and to use customized search criteria such as date, size, sender and recipient. Qsirch even remembers your search history allowing you to quickly navigate to files you've previously searched for. The Qsirch Helper extension (for Google Chrome™ and Mozilla Firefox®) can also be used to search for files on your NAS when using Google Search™. Qsirch provides a huge productivity boost by greatly reducing the time spent looking for files on the NAS.

Comprehensive surveillance solution providing 24/7 security
Surveillance Station is a professional network surveillance Video Management System (VMS) that offers a user-friendly management interface, over 3,000 compatible IP camera models, and expandable IP camera channel licenses. It supports real-time monitoring, video & audio recording and playback with a wide range of customizable settings. You can use iOS® or Android™ Vmobile app to manage the monitored channels anytime and anywhere to safeguard your office environment, or install the Vcam mobile app to turn your device into a network camera to instantly record to your TS-431X. The TS-431X offers 2 free IP camera channels and you can expand up to 30 channels by purchasing additional licenses.

Specifications:

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Specifications	
Product Code	NS-QTS431X
Hardware Details	
Ordering P/N	TS-431X-2G
Processor	AnnapurnaLabs, an Amazon company Alpine AL-212 Dual-core 1.7GHz ARM Cortex-A15 Processor
Hardware Encryption Accleration	Yes
System Memory	2GB DDR3 RAM (1 x 2GB)
RAM slot	1 x SODIMM (Max. 8GB)
Flash Memory	512MB NAND flash
Drive Type	4 x 3.5"/2.5" SATA 6Gb/s HDDs/SSDs, Hot-swappable

10GbE LAN	1 x 10 Gigabit SFP+ LAN Port
GbE LAN	2 x Gigabit RJ45 LAN Ports
USB	3 x USB 3.0 port (Front x1, Rear x 2)
LED Indicators	Status/Power, LAN, USB, HDD 1-4
Buttons	Power, Reset, USB One- touch-copy
Security Design	Kensington security slot
System Warning	Buzzer
Form Factor	Tower
Dimensions (H x W x D)	169 x 160 x 219 mm
	6.65 x 6.3 x 8.62 inch
Weight	Net: 3 kg (6.61 lbs) / Gross: 4.3 kg (9.48 lbs)
Temperature	0-40degC
Relative Humidity	5~95% non-condensing, wet bulb: 27degC
Power Supply	External Adapter 90W, 12V
Power consumption	HDD standby: 11.65W
	In operation: 26.7W
	(with 4 x 1TB HDD installed)
Sound Level	Operating low speed: 19.5 dB(A)
Fan	1 x 12cm smart Fan (12V DC)
Software Details	
Operating System	QTS 4.3 (embedded Linux)
Access Right Management	1. Batch user creation
	2. Import/Export users
	3. User quota management
	4. Local user access control for CIFS, AFP, FTP, and WebDAV
	5. Application access control for Photo Station, Music Station, Video Station, and File Station
	6. Subfolder permissions support for CIFS/SMB, AFP, FTP, and File Station management
Power Management	1. Wake on LAN
	2. Internal hard drive standby mode
	3. Scheduled power on/off
	4. Automatic power on after power recovery
	5. USB and network UPS support with SNMP Management

Web Administration	1. Multi-window, multi-tasking based system management
	2. Smart toolbar and dashboard for neat system status display
	3. Dynamic DNS (DDNS)
	4. SNMP (v2 & v3)
	5. Resource monitor
	6. Network recycle bin for file deletion via CIFS/SMB, AFP, and File Station - Automatic Cleanup - File Type Filter
	7. Comprehensive logs (events & connection)
	8. Syslog client/server
	9. System settings backup and restore
	10. Mobile app: Qmanager for remote system monitoring & management
Supported Client OS	1. Windows 7 (32/64-bit), Windows 8 (32/64-bit), Windows 10 (32/64-bit) Windows Server 2003/2008 R2/2012/2012R2
	2. Apple Mac OS X
	3. Linux & UNIX
Security	1. Network access protection with auto-blocking: SSH, Telnet, HTTP(S), FTP, CIFS/SMB, AFP
	2. CIFS host access control for shared folders
	3. FIPS 140-2 validated AES 256-bit volume-based and shared folder data encryption
	4. AES 256-bit external drive encryption
	5. Importable SSL certi cates
	6. Instant alert via E-mail, SMS, beep, and push service
	7. 2-step veri cation
Storage Management	1. QNAP exible Volume/LUN with thin provisioning and space reclaim
	2. Volume types: RAID 0/1/5/6/10, + hot spare, single, JBOD
	3. Supports storage pools
	4. Online volume expansion & storage pool expansion
	5. Online RAID capacity expansion and online RAID level migration
	6. SMART data migration
	7. SSD read-only/read-write cache
	8. Bad block scan, recovery, and hard drive S.M.A.R.T.
	9. RAID recovery
	10. Bitmap support
Domain Authentication Integration	1. Microsoft Active Directory (AD) & Domain Controller support
	2. LDAP server, LDAP client
	3. Domain users login via CIFS/SMB, AFP, FTP, and File Station

Supported Browsers	1. Microsoft Internet Explorer 10+
	2. Mozilla Firefox 8+
	3. Apple Safari 4+
	4. Google Chrome
Resource Monitor	1. Monitor NAS system resources including CPU, memory and network.
	2. Monitor NAS storage resources including volumes, RAID, and disk activity.
	3. Monitor the resource usage of NAS applications.
File System	1. Internal Hard Drive: EXT4
	2. External Hard Drive: EXT3, EXT4, NTFS, FAT32, HFS+
Multilingual Support	Chinese (Traditional & Simpli ed), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazil), Romanian, Russian, Spanish, Swedish, Thai, Turkish
Networking	1. TCP/IP (IPv4 & IPv6: Dual Stack)
	2. NICs with jumbo frame (failover, multi-IP settings, port trunking/NIC teaming)
	3. Service binding based on network interfaces
	4. Squid Proxy server
	5. Proxy client
	6. DHCP client, DHCP server
	7. Protocols: CIFS/SMB, AFP (v3.3), NFS(v3), FTP, FTPS, SFTP, TFTP, HTTP(S), Telnet, SSH, iSCSI, SNMP, SMTP, and SMSC
	8. UPnP & Bonjour Discovery
	9. USB Wi-Fi Adapter Support
myQNAPcloud Service	1. Private cloud storage and sharing
	2. Free host name registration (DDNS)
	3. Supports myQNAPcloud SSL certi cates (DDNS)
	4. Auto router con guration (via UPnP)
	5. Web-based le manager with HTTPS 2048-bit encryption
	6. CloudLink for remote access without any complicated router setup
	7. myQNAPcloud connect for easy VPN connection (Windows VPN utility)

Qsync	1. Syncs les across multiple devices with SSL support
	2. Selective synchronization for only syncing speci c folders
	3. Use team folders as a le center for greater team collaboration (maximum sync tasks: x86:32, ARM:5)
	4. Shares les by links via e-mail
	5. Policy settings for con icting les and le type lter support
	6. Version control: up to 64 versions.
	7. Incremental synchronization for HDD space saving
	8. Uni ed privilege management
	9. Uni ed con guration management
	10. Supports central con guration mode
	11. Supports remote erase / restore
	12. Supports shared folders sync
	13. Supports Windows & Mac OS
Helpdesk	1. Report issues to the QNAP support team, with automatically-collected system information.
	2. Allows QNAP support engineers to remotely connect to the NAS to fix issues (with user permission).
Powerful All-in-one server	
File Server	1. File sharing across Windows, Mac, and Linux/UNIX
	2. Windows ACL
	3. Advanced folder permissions for CIFS/SMB, AFP, FTP
	4. Shared folder aggregation (CIFS/SMB) monitoring & management
Storage Plug & Connect	1. Creating and mapping shared folders by QNAP Windows Q nder Pro
	2. Creation of and connection to iSCSI target/LUN
FTP Server	1. FTP over SSL/TLS (Explicit)
	2. FXP support
	3. Passive ftp port range control
iTunes Server	1. Audio and video sharing for Windows & Mac iTunes

Hybrid Backup Sync	1. Scheduled backup to local and remote storage spaces
	2. Multiple backup versions with user-de ned retention time for local and remote backup
	3. Syncing with remote servers through RTRR, Rsync, FTP, and CIFS/SMB
	4. Support for Amazon S3, Amazon Glacier, Microsoft Azure, Google Cloud Storage, Openstack Swift, and WebDAV
	5. Syncing with Microsoft OneDrive, Google Drive, Dropbox, Amazon Drive, Yandex Disk, Box, and hubiC
	6. RTRR server and client functionality with bandwidth control
	7. Rsync server functionality with download bandwidth control
	8. Encryption, compression, and le lters
	9. Centralized management for backup, restoration, and sync jobs
	10. Support for Apple Time Machine
	11. Data backup to multiple external storage devices
Container Station	1. Supports LXC and Docker
	2. Supports CPU/Memory management
	3. Download applications from the built-in Docker Hub Registry
	4. Supports one-click installation, container export/import & console mode
	5. Supports mounting NAS shared folders and data-only containers
	6. Supports auto port forwarding
	7. Supports auto-start containers
	8. Supports downloading Docker certi cates
Qcontactz	1. One-way scheduled sync of contacts from multiple Google accounts
	2. Import contacts from file: CSV or vCard 3.0
	3. Export contacts into a file: CSV and vCard 3.0
	4. Find duplicate contacts and merge them
	5. Snapshot management for your contacts database
	6. Manage contacts: Groups, favorite, lock, search, delete & restore
	7. Supported for mobile: Android and iPhone
Qsirch	1. Supports full-text search
	2. Supports near real-time search
	3. Bar chart to show data distribution
	4. Supports previews for photos, music, videos, Gmail, PDF .etc
	5. Customized search filters
	6. Supports cloud viewers for previewing document.
	7. Show search results using thumbnails or a list
	8. Supports search Chrome extension

Notes Station	1. New user interface
	2. New collaborative editor for multi-user text editing.
	3. New spreadsheet editor for creating tables.
	4. Online quick preview of multimedia attachments
	5. Smart snapshot for version control
	6. Full site backup for admin user - coming soon.
DLNA Server	1. Supports DLNA/UPnP TVs and players such as PlayStation 4 and Xbox One
	2. Supported audio formats: AIFF, APE, DSD (DSF, DFF), FLAC, M4A, M4A Apple Lossless (ALAC), MP3, OggVorbis, WAV (PCM, LPCM), WMA, WMA PRO, WMA VBR
	3. Support CUE indexing le for APE, FLAC audio format.
Surveillance Station	1. Supports over 3,000 IP cameras
	2. Includes 2 free camera licenses, up to 30 camera channels via additional license purchase
	3. Instant playback to check recent events
	4. Online editing to edit cameras during live view
	5. Visual aid by e-map
	6. Playback and speed control using the shuttle bar
	7. Video preview on playback timeline
	8. Intelligent video analytics (IVA) for advanced video searching
	9. Surveillance client for Mac
	10. Mobile surveillance app: Vmobile (iOS and Android)
	11. Mobile recording app: Vcam (iOS and Android)
iSCSI (IP SAN)	1. iSCSI target with multi-LUNs per target (Up to 256 targets/LUNs combined)
	2. Supports LUN mapping & masking
	3. Online LUN capacity expansion
	4. Support for SPC-3 persistent reservation
	5. Supports MPIO & MC/S
	6. iSCSI LUN backup, one-time snapshot, and restoration
	7. iSCSI connection and management by QNAP Windows Q nder Pro
	8. Virtual disk drive (via iSCSI initiator)
	9. Max No. of virtual disk drives: 8
AirPlay & Chromecast	1. Streams videos, photos and music from NAS to Apple TV or Chromecast via File Station, Music Station, Photo Station, Video Station or mobile app (Q le, Qmusic, Qphoto or Qvideo).
	2. Note: Media Streaming add-on app from the App Center is required

Video Station	1. Supports virtual/smart collections
	2. Tag videos with text, color, and ratings
	3. Share video links to social websites or through email
	4. Sort videos automatically into de ned classi cations
	5. Display movie posters from IMDB or user upload
	6. Supports displaying subtitles (*.SRT, *.ASS, *.SSA)
	7. Supports Facebook friends login
	8. Supports custom video classi cation
	9. Supports multi-zone video display
	10. Mobile app: Qvideo for online video browsing and management
Photo Station	1. Show photos by thumbnails, list, timeline, or folder view
	2. Supports virtual/smart albums
	3. Validity control for sharing albums
	4. Tag photos with text, colors, and ratings
	5. Slideshows with background music and different transition effects
	6. Geotag photos and display them on Google maps
	7. Advanced search by tags, metadata, etc
	8. Supports uploading photos/videos to Picasa, Flickr, Weibo, YouTube
	9. Share slideshows links to social websites or by email
	10. Supports Facebook friends login
	11. Backup/Restore album con guration
Print Server	1. SMax number of printers: 3
	2. Supports Internet Printing Protocol
	3. Print job display and management
	4. IP-based and domain name-based privilege control

File Station	1. Supports mounting a Cloud Drive (such as Google Drive, Dropbox, Microsoft OneDrive, Amazon Cloud Drive, Yandex Disk and Box).
	2. Supports mounting remote shared folders through FTP, WebDAV or Microsoft networking (SMB/CIFS)
	3. Supports opening documents via Of ce Online, Google Docs or Chrome Extension (Edit Of ce les in Google Docs, Sheets, and Slides)
	4. Supports ISO Mounting (Up to 256 ISO Files)
	5. Supports thumbnail display of multimedia les
	6. Supports sharing download links and upload links
	7. Supports sharing to other NAS users
	8. Drag-n-drop Files via Chrome and Firefox Browsers
	9. Photo, music, and video preview and playback
	10. File Compression (ZIP or 7z)
	11. Supports displaying subtitles (*.SRT, UTF-8 format)
	12. Supports slideshow playback in media viewer
	13. Mobile App: Q le for le browsing and management
App Center	1. Of cial and community software add-ons such as Signage Station and Notes Station
QVPN Service (Integrated VPN Server, VPN Client and L2TP/IPSec VPN Services)	1. VPN Server: Secure remote access with PPTP, L2TP/IPSec & OpenVPN VPN services
	2. VPN Server: Up to 100 clients.
	3. VPN Server: Supports domain users as VPN users.
	4. VPN Client: Supports PPTP, L2TP/IPSec & OpenVPN VPN protocols.
	5. VPN Client: Supports importing .ovpn files to create OpenVPN connection.
Download Station	1. PC-less BT, FTP/FTPS, and HTTP/HTTPS, Thunder, FlashGet and qqdl download (up to 500 Tasks)
	2. BT download with Magnet Link and PT support
	3. Scheduled download and bandwidth control
	4. RSS subscription and download (broadcatching)
	5. BT search
	6. Proxy support for BT download
	7. Mobile app: Qget for downloads browsing and management

Product Information Online

For the latest product information, availability and purchasing details, please visit the product page:

Product page:
https://www.comx-computers.co.za/NS-QTS431X-QNAP-TS-431X-4-Bay-Network-Attached-Server-p-242409.php

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