

QNAP

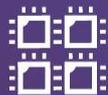
TS-233

Multi-functional private cloud

supporting NPU for AI-powered image recognition and snapshot protection



RAM



64bit
Quad-Core



NPU AI
Acceleration



2-bay
2.0GHz

TS-233 NAS features



Storage



Snapshot



NPU AI
Acceleration



Outline

- Do you have these trouble?
- QNAP NAS solves your problems
- Equipped with a new QTS 5.0
- Built in NPU AI accelerator
- Hardware introduction
- NAS installation
- HBS3 Data protection / Snapshot / Synchronization
- DA Drive Analyzer Disk failure prediction
- Data security
- QuMagie / Qsirch AI-powered image classification
- QVR Elite smart surveillance system
- Multimedia streaming
- Various mobile apps
- NAS use case scenarios



Do you have these troubles?



- Have problem saving all your photos, video, other files in one place
- Hard to find your data from Pen Drive and external devices
- Afraid of data loss
- Take a long time to organize data
- Have difficulty setting the home surveillance
- Have trouble finding an intelligent home automation solution



QNAP NAS solves your problems



Centrally manage massive storage data

supports a single SATA slot of 18TB



Unique AI Application QuMagie, and Qsirch

QuMagie, Qsirch



Intelligent automated software

Qsync, Qmiix (data backup and synchronization, home automation)



Supports HBS3 to be a comprehensive backup solution

Data security protection

New QTS 5.0 NAS Build-in



Supports WireGuard VPN

Safe internet
connection and fast
setup



Upgraded Linux Kernel 5

Improved security and
digital assets protection

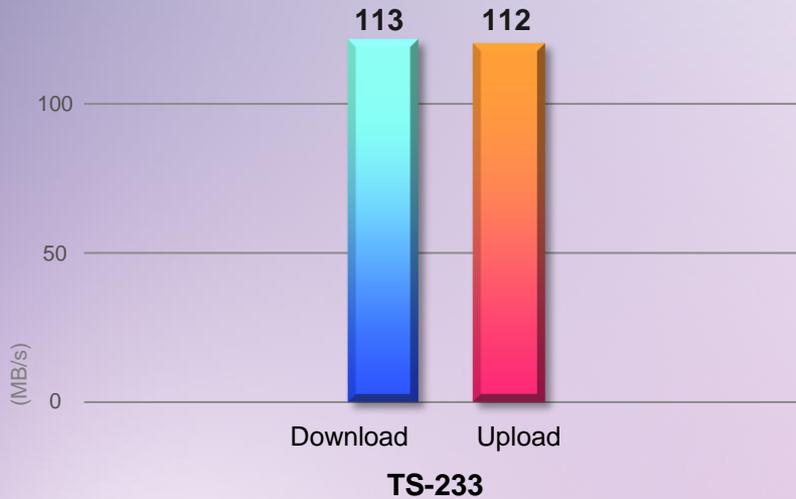


Brand New UI

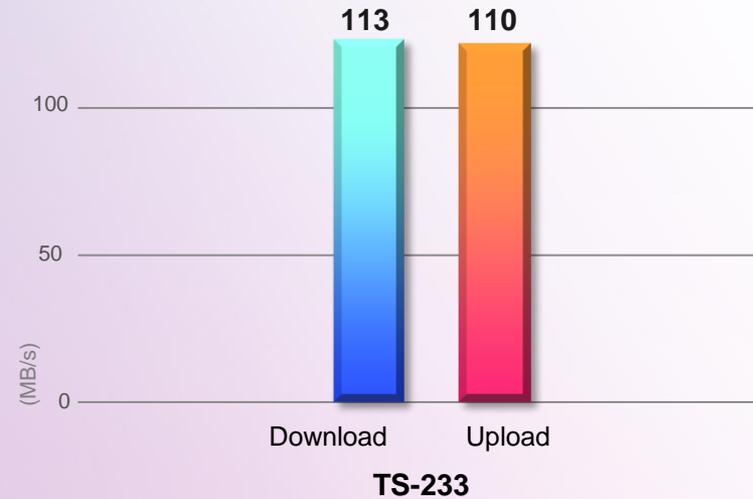
Minimalistic, aesthetic
design and seamless
user experience

Performance – full speed 10 GB file transfer

Windows file transfer



Windows File Transfer with Encryption



Test Environment

NAS: TS-133
OS: QTS 5.0
Volume type: Samsung SSD 850 PRO 512GB
Client PC: Windows 10, Intel Core i7-6700 CPU, 3.40GHz., 64GB RAM

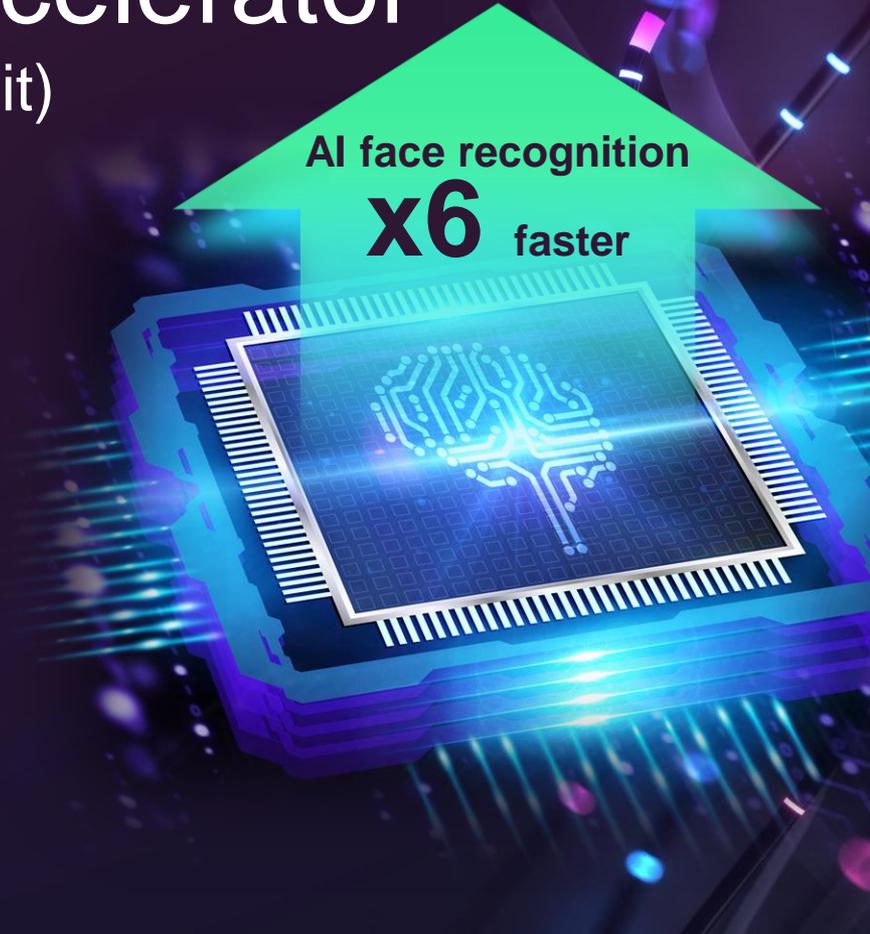
Tested in QNAP Labs.
Figures may vary by environment.

Build-in NPU AI accelerator (Neural network Processing Unit)



The TS-233

supports QuMagie Smart Album and is six times faster than the AI face recognition speed of the same class model. In addition, the NPU AI accelerator of the TS-233 can make QuMagie AI increase by 12%, accelerating your life.



AI face recognition
x6 faster

TS-233 Hardware



TS-233 size and I/O



- ARM 64bit Cortex-A55 quad-core 2.0GHz processor
- Build-in 2GB memory
- 1 x gigabit ethernet
- 2 x SATA
- 1 x USB 3.2 Gen 1, 2 x USB 2.0
- Energy-efficient (standby: 3.43W, operation: 10.81W)

TS-233 size and I/O



STATUS

LAN

USB

HDD1

HDD2

Power

USB Copy

USB 3.2
Gen 1
Port

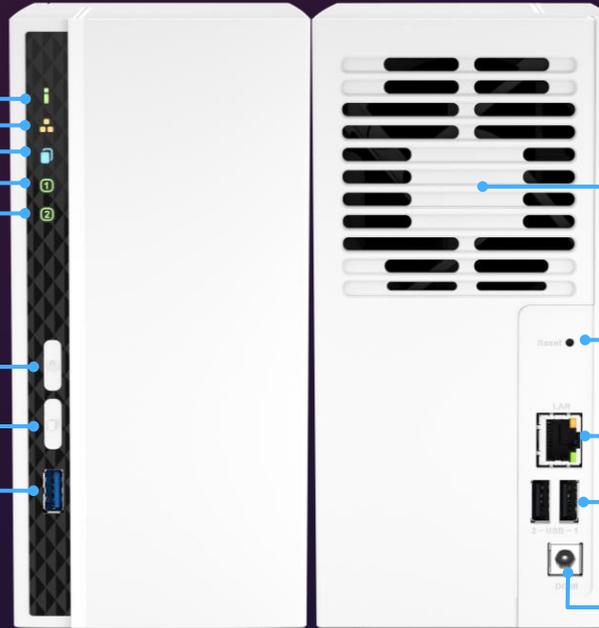
Smart
Cooling
FAN

Reset Button

GbE LAN Port

USB 2.0 Port

DC 12V Input



TS-233 spec

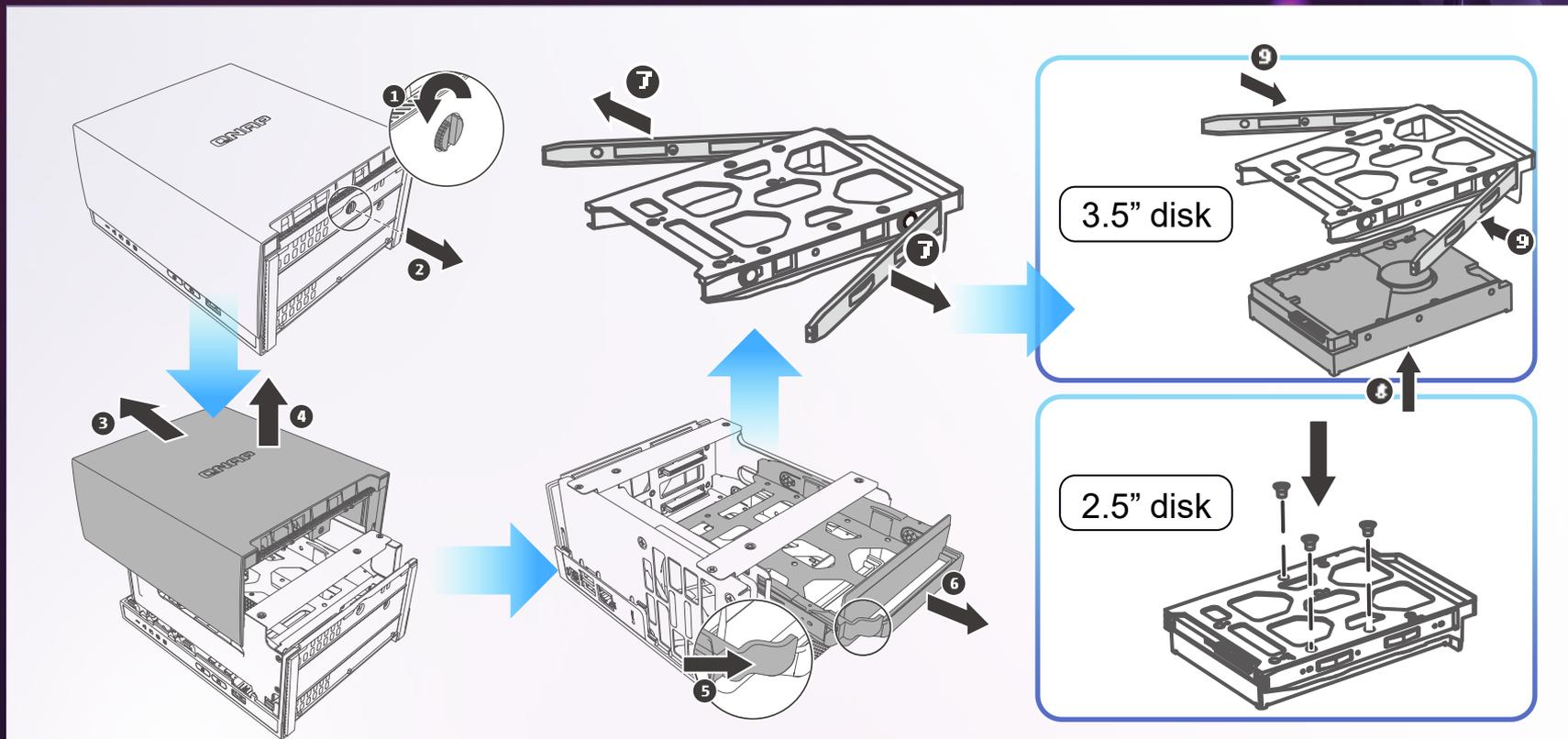
TS-233

CPU	ARM Quad-core Cortex-A55 up to 2.0GHz
System memory	2GB DDR4 (on board)
Drive bay	2 x 2.5" / 3.5" SATA
Drive Compatibility	SATA 6Gb/s
Gigabit RJ45 Ethernet Port	1
USB port	1 x USB 3.2 Gen1 Type-A (front) 2 x USB 2.0 Type-A (rear)
Form Factor	Desktop
LED Indicators	Status, LAN, USB, HDD1-2
Buttons	Power, Reset, USB Copy
Dimensions (HxWxD)	188.64 × 90.18 × 156.26 mm
Power Adaptor	12V, 65W
Fan	80mm

NAS Installation



TS-233 with 2.5"/3.5" disk installation

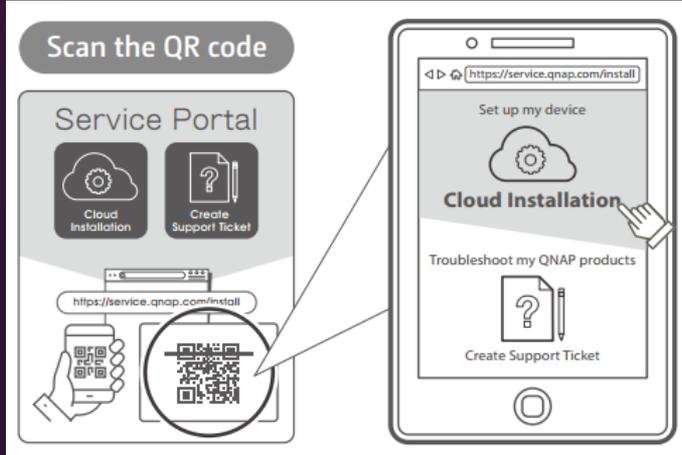


NAS installation and initialization



NAS quick installation

- 1 scan the QR code with your mobile phone for installation



- 2 download the Qfinder Pro program on your computer for installation



myQNAPcloud Link remote access

myQNAPcloud Link provides a safe and convenient remote access service, linking you to your QNAP NAS from wherever you are.



Safe connection with SSL certificate



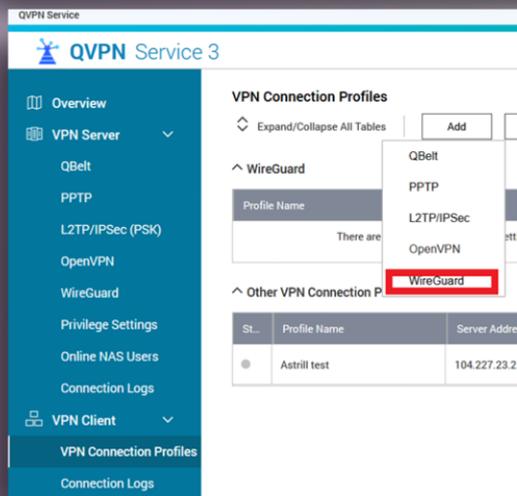
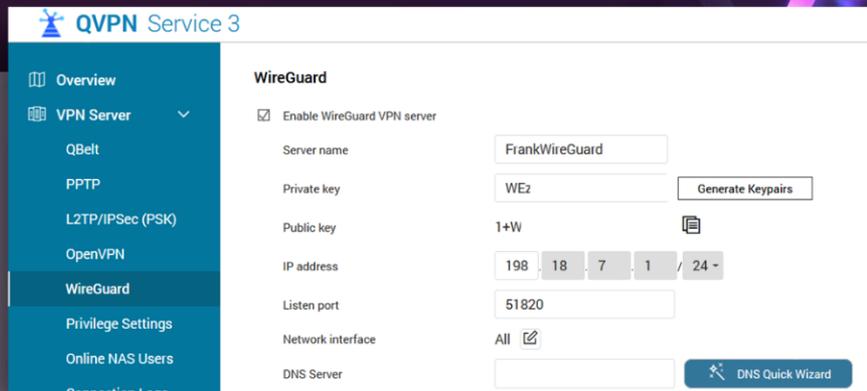
Access control



High-speed WireGuard VPN support



- WireGuard® provides faster Point-to-Point of VPN connectivity.
- QVPN service integrated WireGuard server/client
- Compatible mobile devices which install Wireguard enjoy high-speed VPN transmission.



HBS3

data protection,
synchronization,
recovery

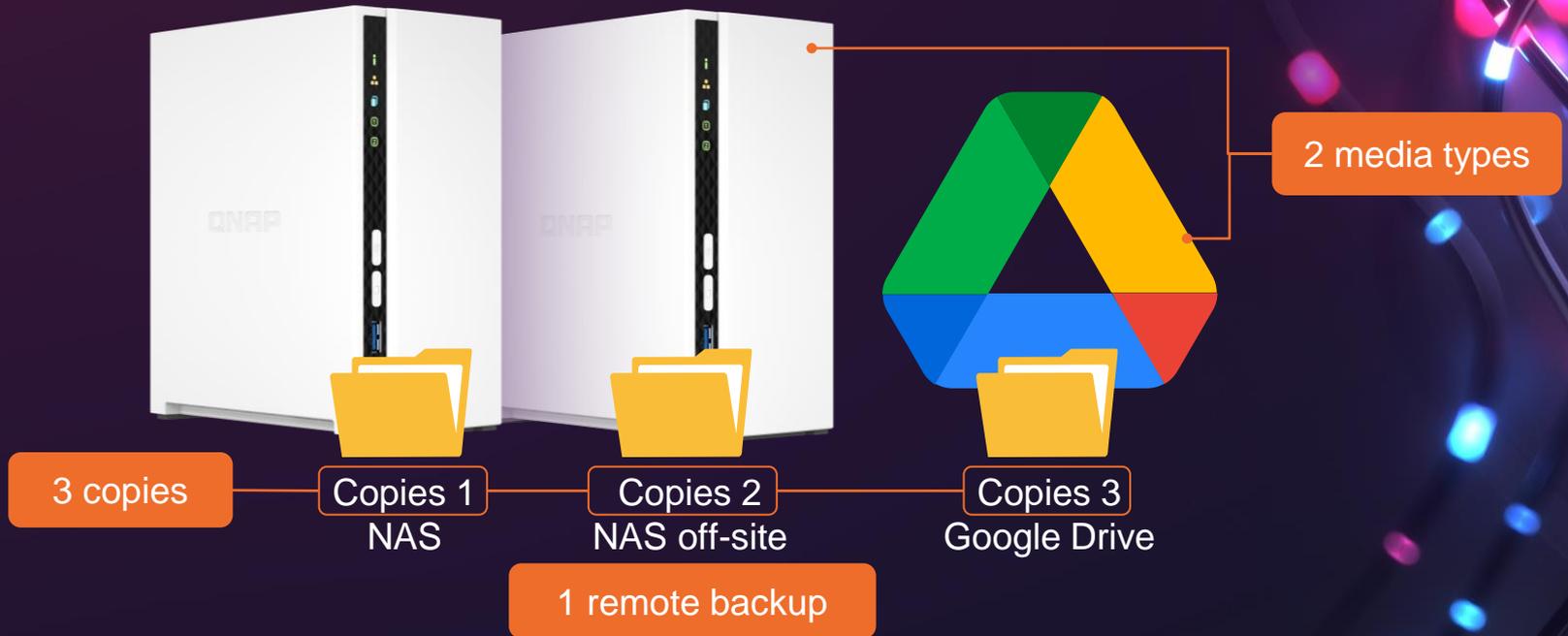
Hybrid Backup Sync



HBS3 set by three steps for a backup strategy



Simple completed 3-2-1 backup strategy and recovery plan 3 copies 、 2 media type 、 1 remote backup



HBS3

multi-cloud backup, remote backup and synchronization, recovery



Multi-cloud

data backup and synchronization for NAS private cloud and public cloud



Remote backup and synchronization

remote backup and sync by RTRR



Data recovery

data protection and recovery

Snapshots



Taking a snapshot is like taking a photo - within seconds the complete status of your NAS system and data is recorded. If an unexpected situation arises on your system, you can revert to the state recorded by a snapshot. With greater space-efficiency and flexibility compared to traditional backup methods, snapshots are the best way to protect your files and data.

A screenshot of a web-based management interface for storage and snapshots. The interface is divided into a left-hand navigation menu and a main content area. The navigation menu includes sections for 'Overview', 'Storage', 'Snapshot Backup', and 'iSCSI & Fibre Channel'. The 'Snapshot Backup' section is expanded, showing options like 'Snapshot', 'Snapshot Replica', and 'Snapshot Vault'. The main content area is titled 'Storage Pool 1' and features a green shield icon with a smiley face, indicating 'Local Protection'. Below this, there is a 'Space Allocation' section showing a progress bar and statistics: 'Total 16.36 TB', 'Allocated: 16.96%', 'Pool Guaranteed Snapshot Space: 20.00%', 'Snapshot used: 0.27%', and 'Unallocated: 63.04%'. A 'Protection Status' section shows 'Volumes: 1 LUNs: 0' and a legend for 'Snapshots and Snapshot Replica', 'Snapshots', 'Snapshot Replica', and 'No Snapshots'. A 'DataVol1' section displays a timeline of snapshots with dates '2021/12/11 Earliest', '2022/02/14 Latest', and '2022/02/14 Now'. A blue double-headed arrow indicates a 'Total: 13' snapshots. A warning icon in the bottom right corner shows 'Time since last snapshot: 00day(s) 00hour(s) 01min(s)'.

Storage & Snapshots

External Storage Devices

Storage Pool 1

Space Allocation (Total 16.36 TB)

Pool Guaranteed Snapshot

Allocated: 16.96 % Pool Guaranteed Snapshot Space: 20.00 % Snapshot used: 0.27 % Unallocated: 63.04 %

Local Protection

Protection Status (Volumes: 1 LUNs: 0)

Snapshots and Snapshot Replica Snapshots Snapshot Replica No Snapshots

DataVol1

DataVol1 Snapshots

2021/12/11 Earliest 2022/02/14 Latest 2022/02/14 Now

Total: 13

Time since last snapshot: 00day(s) 00hour(s) 01min(s)

DA Drive Analyzer disk failure prediction

ULINK, the world leader in providing
IT storage interface test tools



DA Drive Analyzer disk failure prediction



Each NAS can perform one disk prediction for free, and you can also pay to subscribe to enhance protection for all disks.

Disk health analysis and failure prediction

DA Drive Analyzer integrated ULINK AI predict technology can warn you before disk failure, help you protect valuable data

DA Drive Analyzer

- Overview
- Drive Prediction
- Email Alerts
- Additional Information
- Prediction History

Overview

DA Drive Analyzer

Drive enclosures: 2, Drives: 21 (HDD: 19; SSD: 0; NVMe drives: 2)

Faulty

5

Defective drive detected.

Replace the drive.

Critical

4

90% risk of failure

Replace the drive as soon as possible.

Warning

9

70% risk of failure

Start planning for a drive replacement.

Normal

1

Drive(s) are functioning normally.

Data Analysis in Progress

0

There are no new drives in the stage.

Important: Review Drive Status

Drives: 18 (Faulty: 5, Critical: 4, Warning: 9)

Drive (Drive Enclosure)	Severity Level	Drive Manufacturer	Drive Capacity	
Disk 1 (NAS Host)	Warning	ST320LM001	298.09 GB	
Disk 2 (NAS Host)	Warning	WDC	298.09 GB	
Disk 4 (NAS Host)	Faulty	ST320LM001	298.09 GB	
Disk 7 (NAS Host)	Warning	TOSHIBA	298.09 GB	
Disk 8 (NAS Host)	Critical	WDC	298.09 GB	
Disk 9 (NAS Host)	Faulty	TOSHIBA	298.09 GB	

License

License plan:
BETA

Valid until:
2022-02-18

Data security

Malware Remover, QuFirewall



Data security



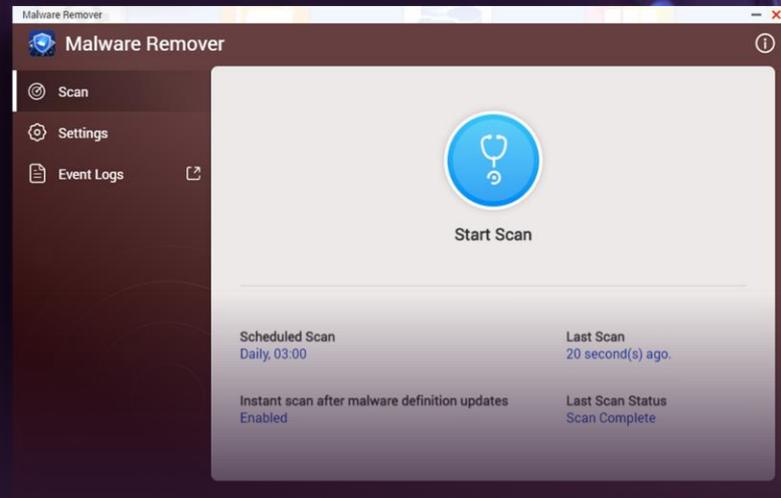
QuFirewall

You can allow/deny IP addresses and regions to prevent unauthorized access and brute force attacks for safeguarding data and service security.



Malware Remover

Protect your NAS data against malware attacks



QuMagie / Qsirch auto-organize and sharing your photos

Brand-new interface with intelligent auto-organization

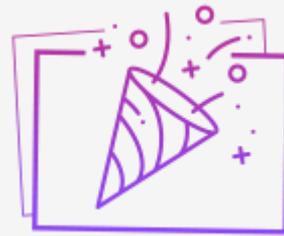
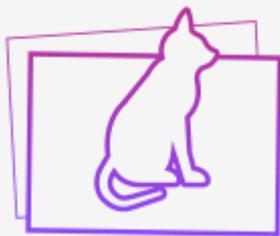
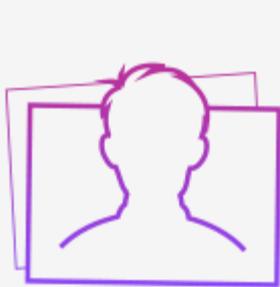




QuMagie auto-organize your photos

TS-233 build-in NPU AI Accelerator  powered
QuMagie image recognition

QuMagie integrates AI image recognition and intelligent classification for your photo. Featuring a streamlined user interface, a built-in timeline scroll, customizable folder covers, iOS® Live Photo display and a powerful search tool, QuMagie provides you with the ultimate photo management and sharing solution.



LIVE DEMO



Qfile put massive files into your pocket



All-in-one App

Local NAS files, Cloud services mount, Remote NAS files, External devices



Share files

Easily share files to others.



Auto upload

Real-time auto upload files in mobile device in the background.



Advanced Security

Support 2-step authentication and passcode.

Support



Qfile

Qsirch full text search tool

Qsirch is QNAP dedicated full-text search tool for finding files by filename(metadata) that sets your search conditions.



Full-text search



AI search



Multiple filters



Find everything!



NAS Edition

Search massive data in the NAS.



PC Edition

The most powerful search engine that integrate with NAS and PC local search.

Qfiling auto archive and filing

Qfiling automates your file organization. All you need to do is categorize your files, set a schedule, and Qfiling will do the rest. It's easy, smart, and efficient!



Flexible

Customize the filing and batch editing rules.



Efficient

Scheduling for auto filing.



Total Control

With system logs, filing status is easily accessible.

The screenshot displays the Qfiling Premium interface. On the left is a navigation menu with 'Overview', 'Task List', 'Recipe Library', and 'System Logs'. The main area is titled 'Task Status' and features three circular progress indicators for 'One-time task', 'Scheduled task', and 'Real-time task'. Below this is a 'File Editing Modules' section with various icons for tasks like video transcoding, subtitle pairing, encryption, compression, watermarking, resizing, converting, face blurring, and image-to-PDF conversion.

Task Type	Total	Completed	Running	Queued
One-time task	4	2	1	1
Scheduled task	3	1	1	1
Real-time task	1	0	0	1 (Monitoring the ...)

File Editing Modules
During the filing process, you can also edit or convert files using the below file editing modules.

- Video Transcoding (For videos)
- Subtitle Pairing (For videos)
- Encryption & Decryption (For all files)
- Compression (For all files)
- Watermark (For images and videos)
- Resize (For images)
- Convert (For images)
- Face Blur (For images)
- Image2PDF (For images)

QVR Elite Surveillance System

flexible subscription plan for
recording channels

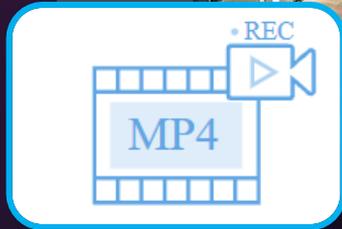
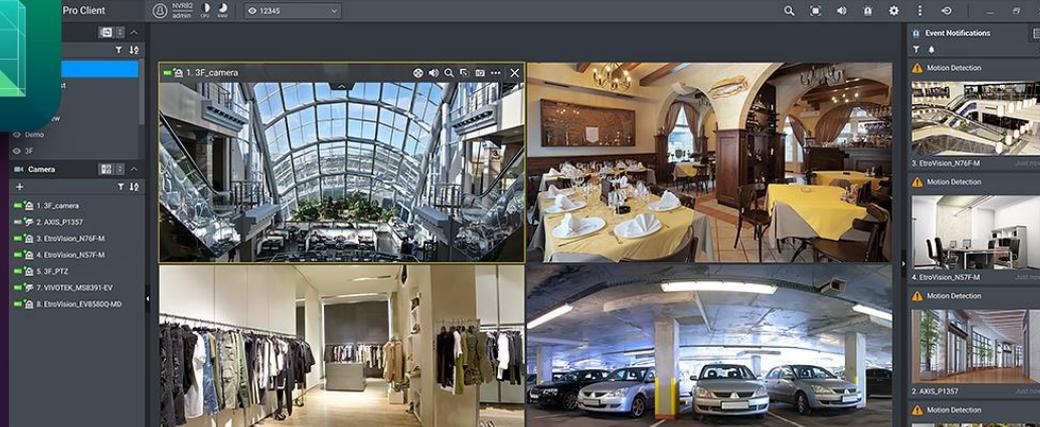


QVR Elite - Surveillance System



2 base
embedded
channels

(Flexible expansion)



MP4
Recording Format



Flexible
Subscription



Expandable
Capacity

Compatible with Huge Amount of Camera Models

over **180** Brands

 GeoVision

 VIVOTEK
BUILT WITH RELIABILITY

 Panasonic

 AXIS
COMMUNICATIONS

 MOBOTIX

 Canon

 HIKVISION

 aHua
TECHNOLOGY

 Honeywell

 Brickcom

over **6700** Models



ONVIF Profile Supported

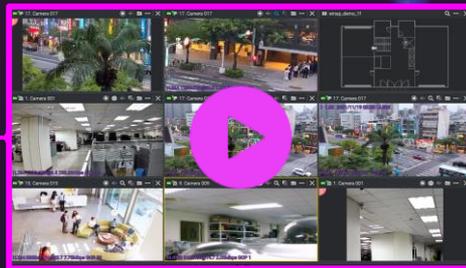
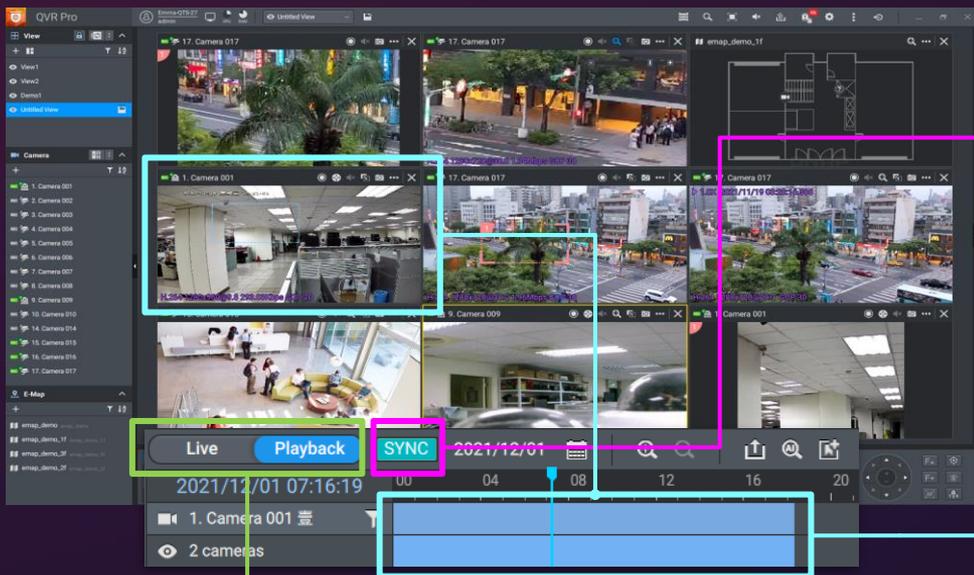


RTSP Stream
Input / Output

RTMP Stream
Input

Unified Interface for Live & Playback

Monitor the live view of multiple channels and playback on 1 single interface.



1-click to sync playback all video views

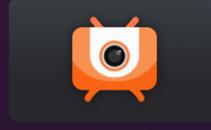
1 click to jump to the previous playback time

1 click to switch between Live & Playback

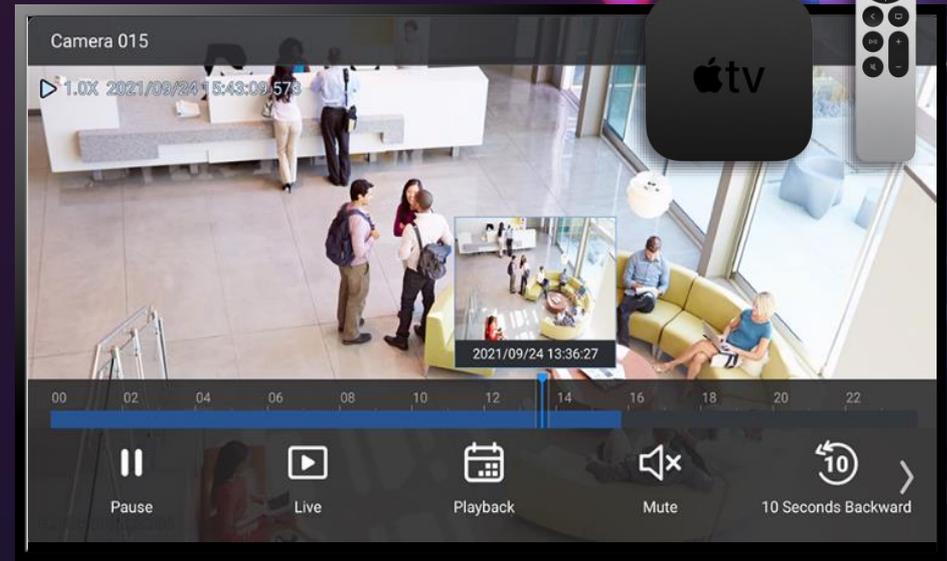
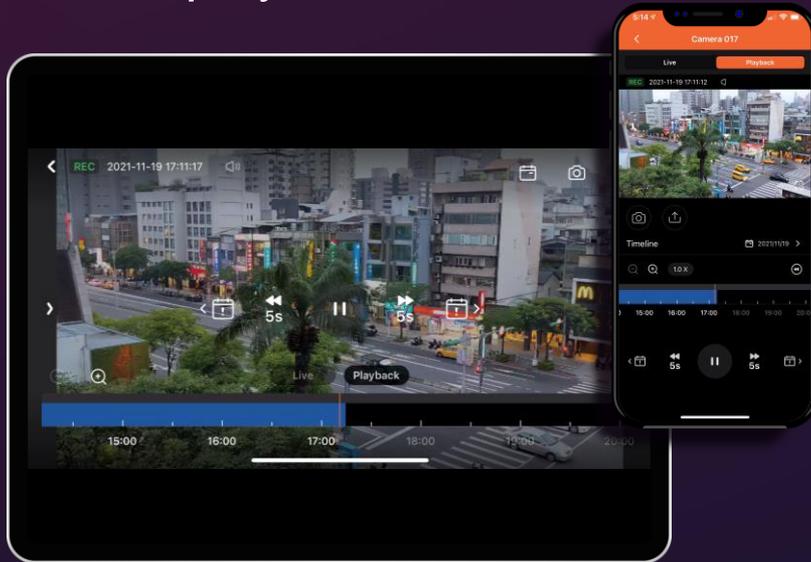
Surveillance Client for mobile and home environment



QVR Pro Client
mobile monitoring
playback



QVR Viewer
Surveillance for Apple TV



Multimedia Streaming



Multimedia Streaming

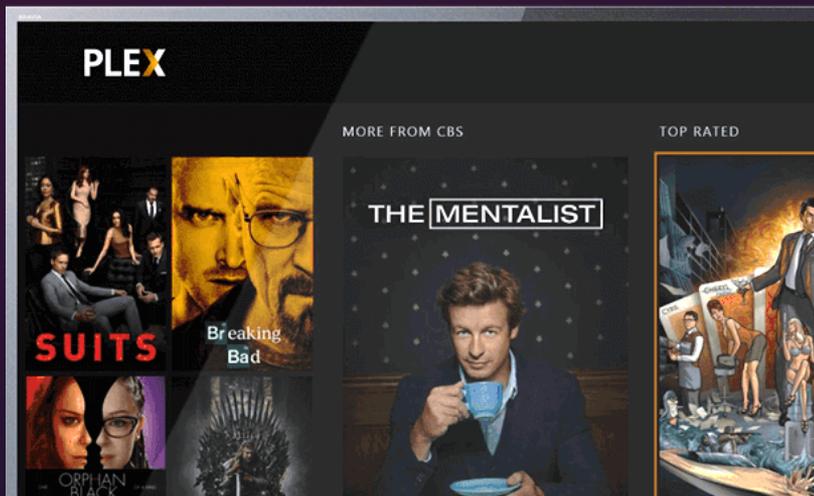


Plex multimedia server

* coming soon



CAYIN MediaSign
Player video transcoding



Thumbnail	Filename	Codec	Length	Resolution	Size
	video.mp4	H264	01:23:27	4320x240	246.6 MB

Format: mp4
Resolution: 720p
Bitrate: Original

video_H264_720p.mp4 Transcode

Thumbnail	Filename	Codec	Category	Favorite	Length	Resolution	Size
	video_1080p_H264	H264			00:09:11	1920x1080	143.2 KB
	video_1080p_H264	H264			00:02:15	1920x1080	75.7 KB
	video_1080p_H264	H264			00:08:42	1920x1080	63.1 KB
	video_1080p_H264	H264			00:03:24	1920x1080	74.0 KB
	video_1080p_H264	H264			00:08:30	1280x720	6.7 KB
	video_1080p_H264	H264			00:03:30	1280x720	13.4 KB
	video_1080p_H264	H264			00:02:30	1920x1080	35.0 KB

Qmiix

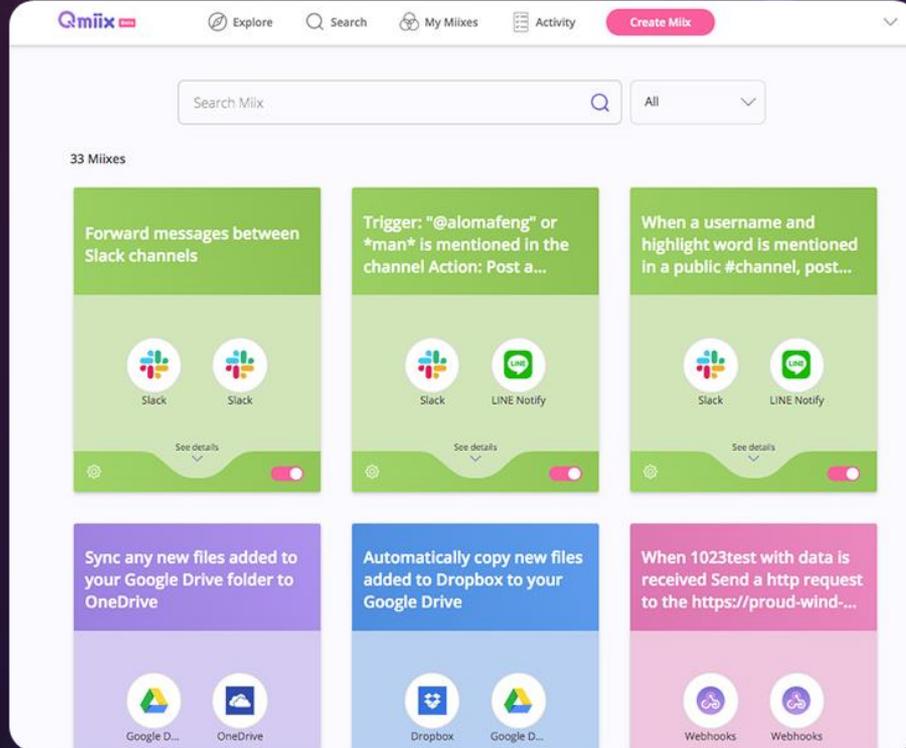
The Cross-Platform
Automation Solution



Qmiix The Cross-Platform Automation Solution



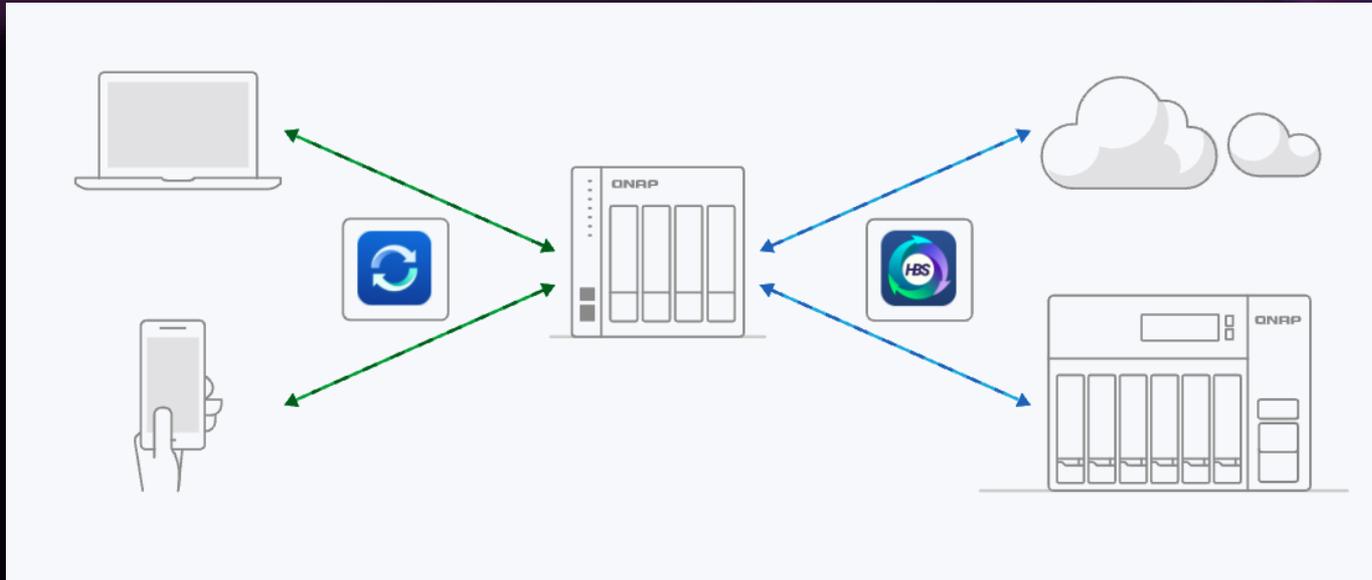
Qmiix automates actions between QNAP NAS, cloud services, social networks, and messaging apps to simplify routine tasks



Qsync Cross-device file sync for individuals and teams



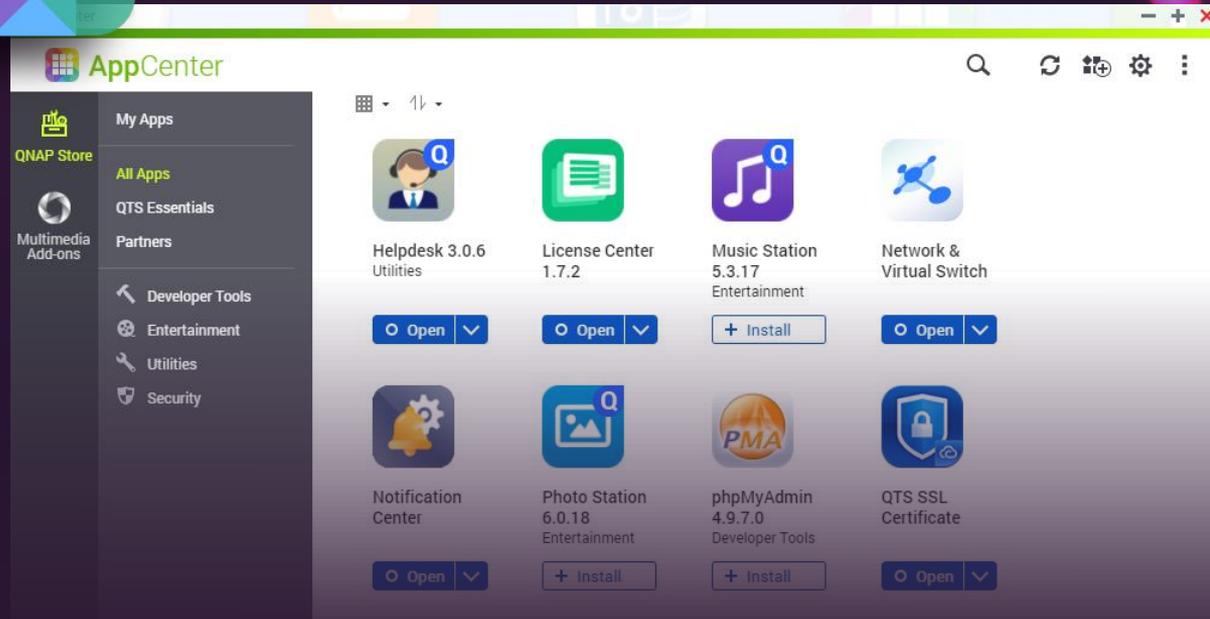
Qsync can automatically synchronize desktop and laptop files to devices connected to the NAS



App Center Install-on-demand apps extend NAS features



various and comprehensive software for your NAS application



Suitable users



TS-233

Home users

Small business users



NAS application scenarios



QNAP



TS-233 is Your Best Choice!

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