QNAP

4/12-bay Rackmount NAS Series

TS-x64U

Intel N5105/N5095 burst frequency 2.9GHz quad-core 2.5GbE NAS with PCIe for M.2 SSD caching & network cards

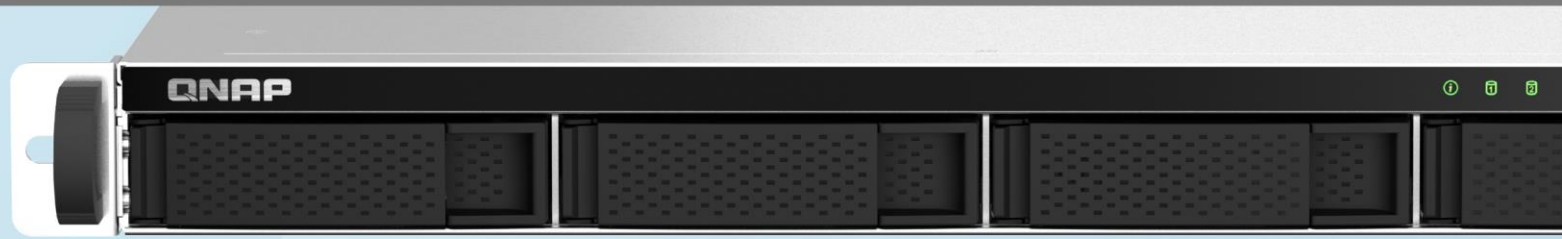
TS-1264U

intel. CELERON

HDMI

2.5GbE

PCIe Gen3



TS-464U

Hardware overview

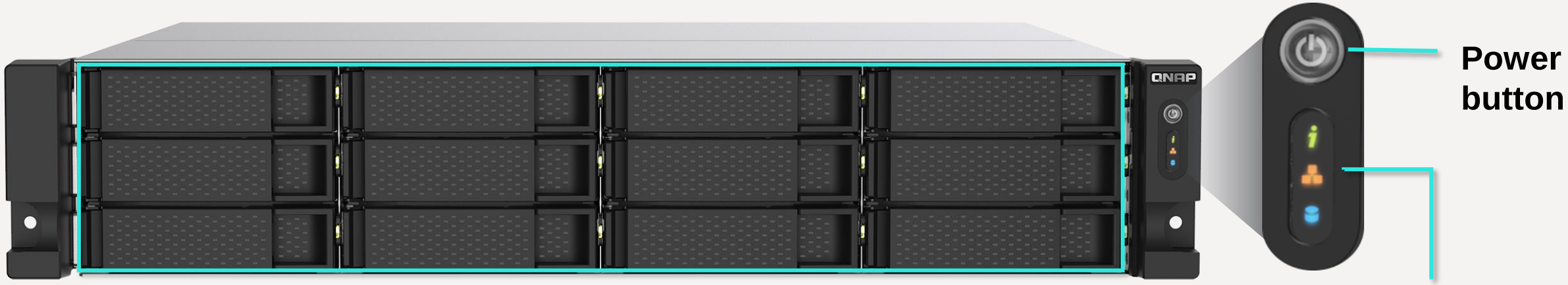
QNAP

TS-x64U

4/12-bay Rackmount NAS Series

TS-x64U front views

TS-1264U-RP



4/12 x SATA 6Gb/s 3.5-inch/2.5-inch HDD/SSD

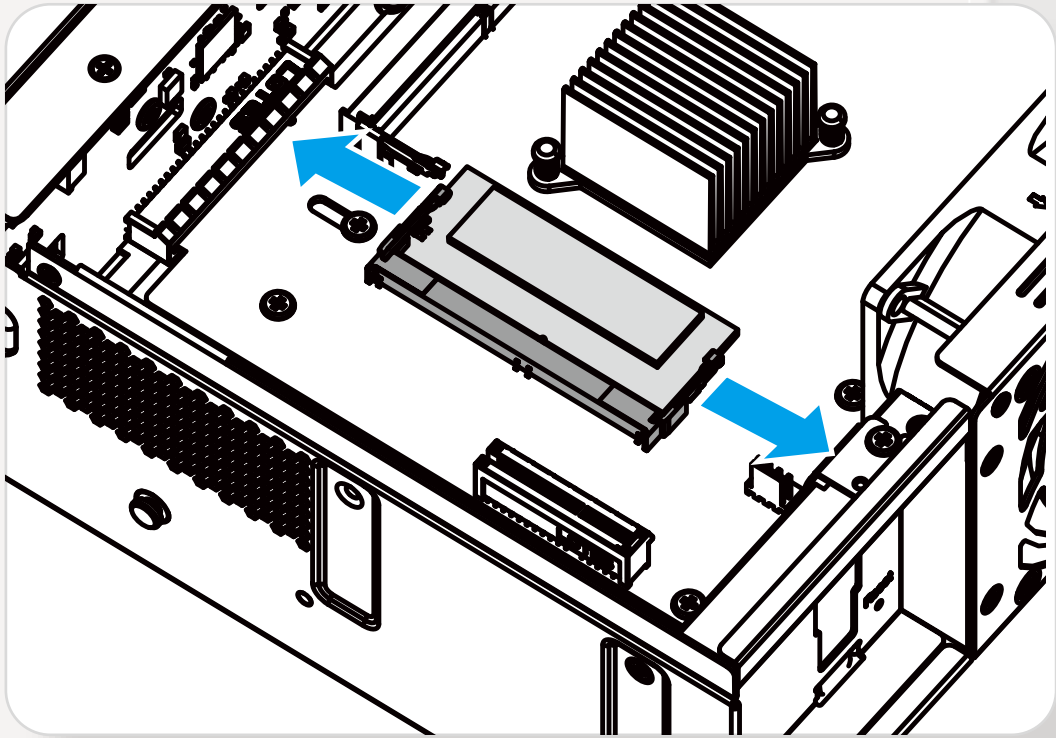
LED indicators: HDD 1~4/12, Status, LAN, expansion device

TS-464U-RP / TS-464U

Upgradeable to 16GB memory for multi-tasking and multi-client access

Dual channel

- 2 x DDR4 SO-DIMM slots for max **16 GB** (**2 x 8 GB**)



NAS Models

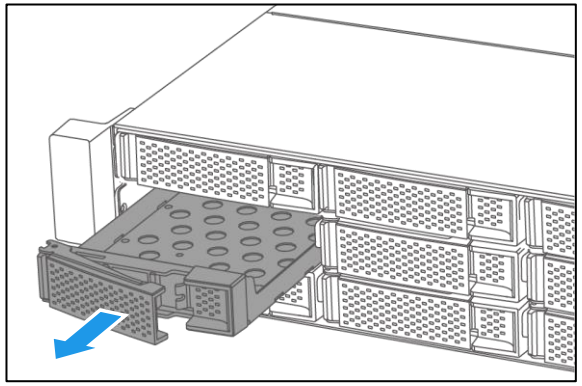
TS-464U-4G
4 GB RAM (1 x 4 GB)

TS-464U-RP-4G
4 GB RAM (1 x 4 GB)

TS-1264U-RP-4G
4 GB RAM (1 x 4 GB)

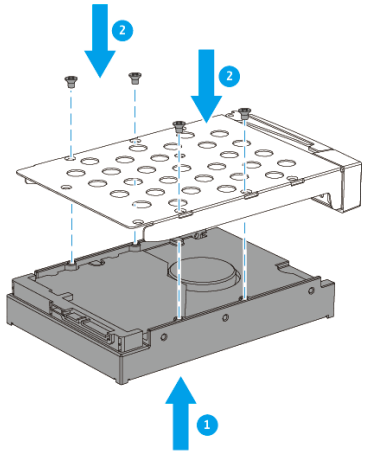
Easy to install HDDs and SSDs in few steps

STEP | 01

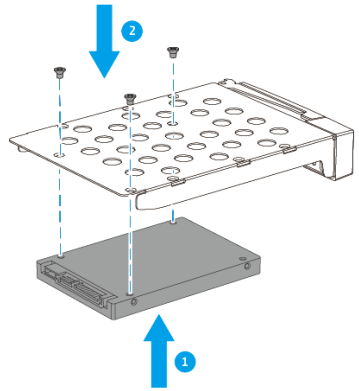


STEP | 02

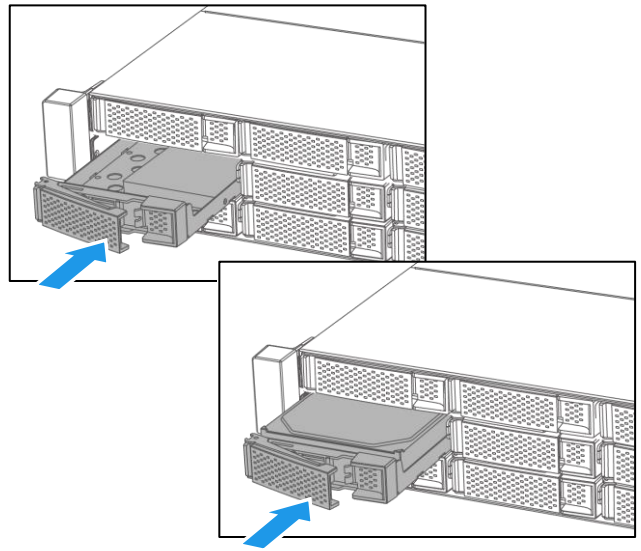
3.5-inch HDD



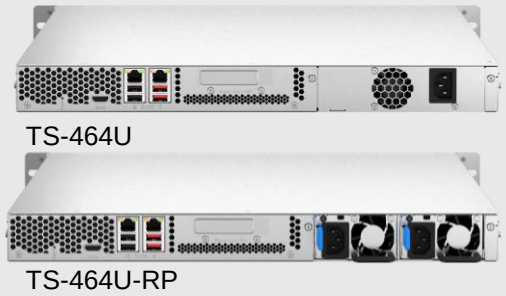
2.5-inch HDD / SSD



STEP | 03



TS-x64U rear views



HDMI 1.4b

2 x 2.5G/1G/100M RJ45

AC 100-240V power input

TS-464U-RP, TS-1264U-RP have redundant PSUs

TS-1264U-RP

PCIe Gen3 x2 slot

2 x USB 2.0

2 x USB 3.2 Gen2

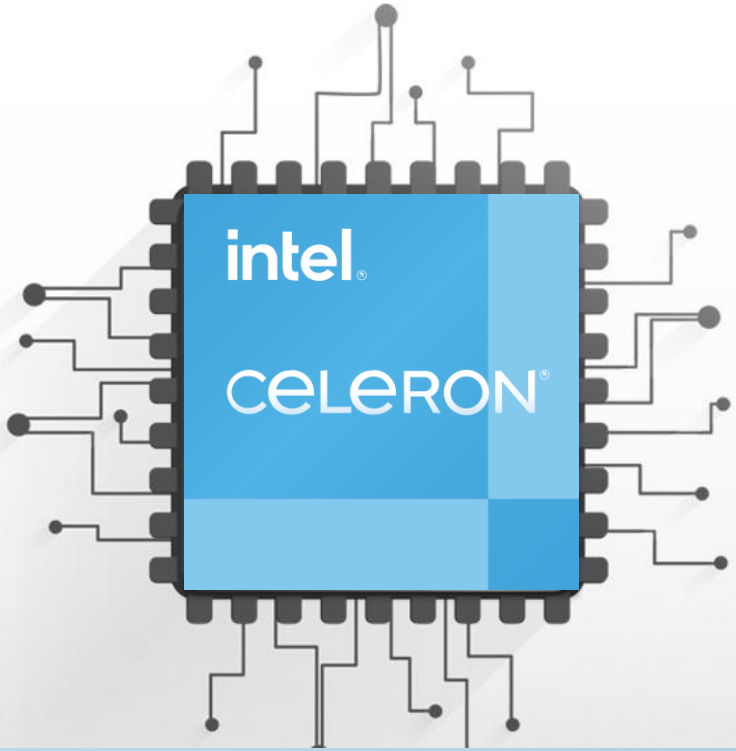
QTS 5.0 + Linux kernel 5.10

To provide the best performance of Intel® Celeron® N5105/N5095, TS-x64U is shipped with QTS 5.0, using the new Linux kernel 5.10. QTS 5.0 optimizes overall system performance and NVMe SSD over-provisioning & cache performance to enhance TS-x64U functionality.

AES-NI encryption
Volume & folder support

N5105/ N5095
Jasper Lake

2.9GHz
Burst



GPU up to 800 MHz
UHD Graphics

4-core
4-thread

2.5GbE accelerates large file transfer than 1GbE, especially suitable for a single client environment

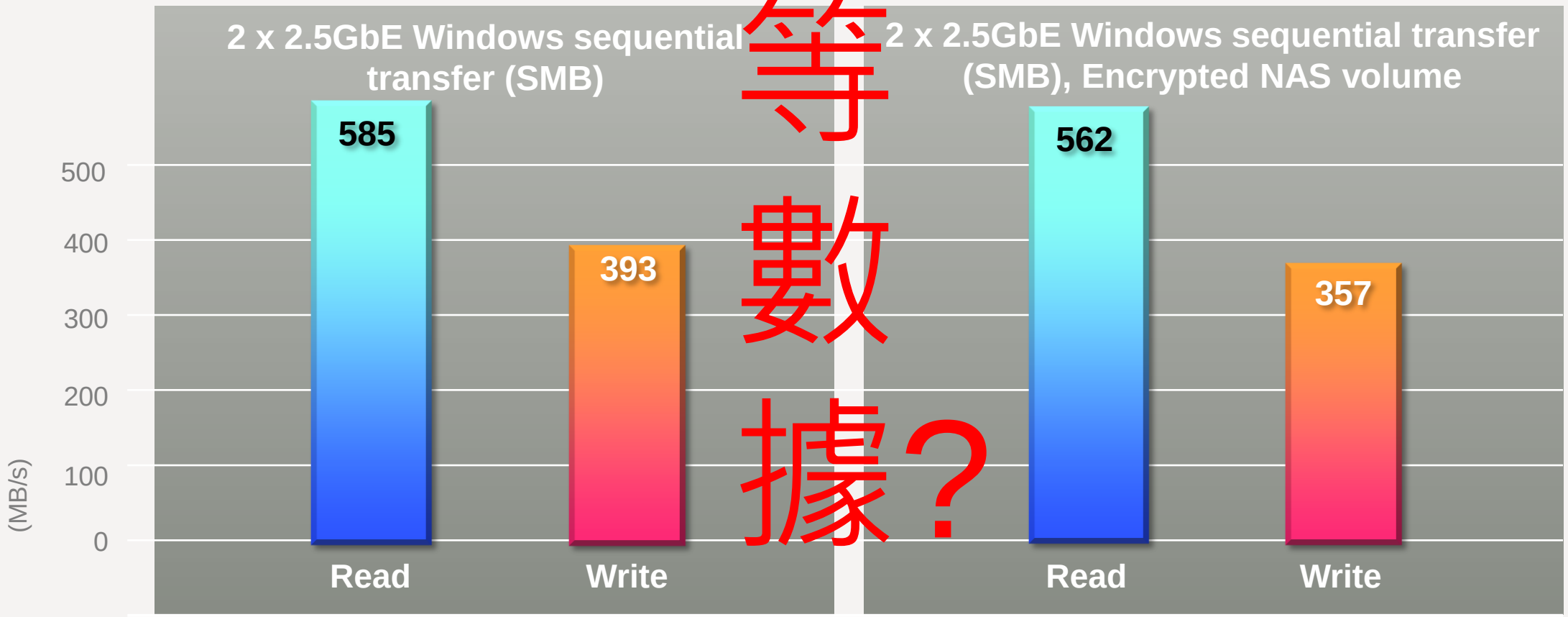
Tested in QNAP Labs. Figures may vary by environment.

Test environment:

NAS | TS-464U-4G, QTS 5.0.0 , 4 x Samsung 860 Pro 512GB, RAID 5
Client PC | Windows Server 2016, Intel Core i7-6700 3.4 GHz, 64GB RAM
IOmeter | 30-sec ramp up time, 3-min seq. run time, 16 workers, 4-outstanding

2 x 2.5GbE for the multi-user/device environment for the future business growth

In addition to Jumbo Frame support, port trunking / link aggregation provides enhanced performance.



等數據?

Test environment:
NAS | TS-1253DU-RP-4G, QTS 4.4.2, 12 x Samsung 850 Pro 512GB, RAID 5, thick volume
Client PC | Windows 10 Pro, Intel Core i7-6700 3.4 GHz, 32GB RAM
IOmeter | RAM*4, 30-sec ramp up time, 3-min seq. run time, 2 workers, 64-outstanding, 1MB

Tested in QNAP Labs. Figures may vary by environment.

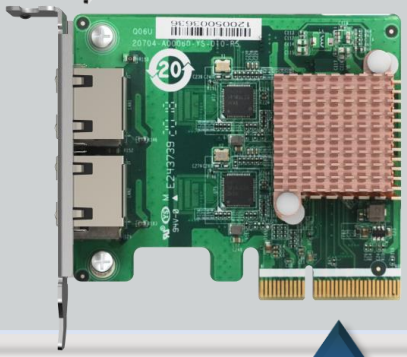
PCIe 3 slot for various 2.5GbE/ 5GbE/ 10GbE NICs to accommodate different environment

QXG-5G1T-111C
1 x 5G/2.5G/1G/100M

QXG-5G2T-111C
2 x 5G/2.5G/1G/100M

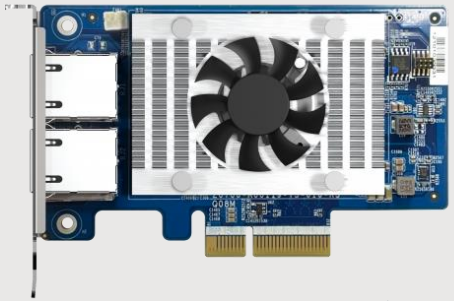
QXG-2G1T-I225
1 x 2.5G/1G/100M/10M

QXG-2G2T-I225
2 x 2.5G/1G/100M/10M

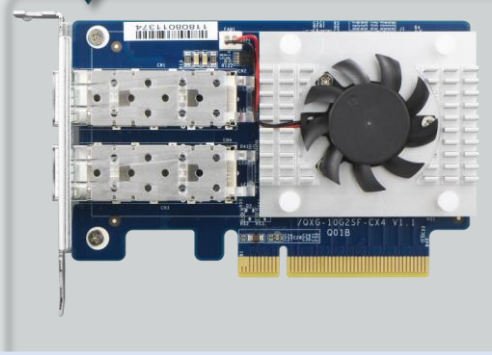


QXG-10G1T
1 x 10G/5G/2.5G/1G/100M

QXG-10G2T-X710
2 x 10G/5G/2.5G/1G/100M

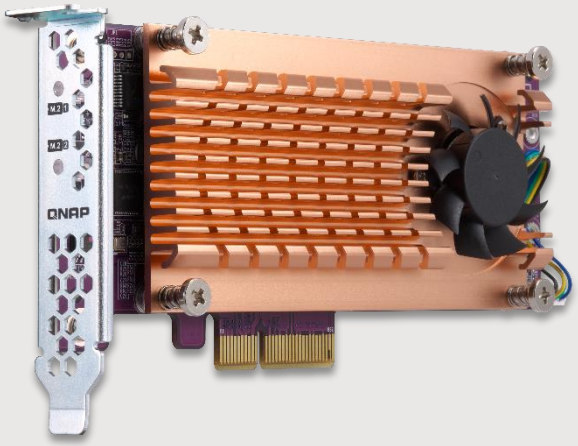


QXG-10G2SF-CX4
2 x 10G SFP+

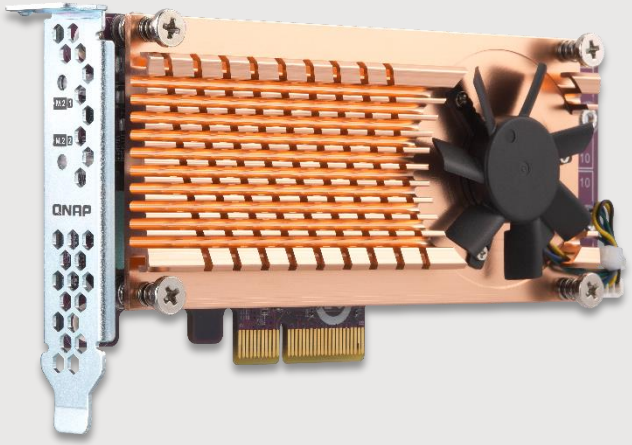


Add two M.2 SSDs with a QM2 PCIe adapter and use SSD cache to enhance IOPS and performance of processing small files

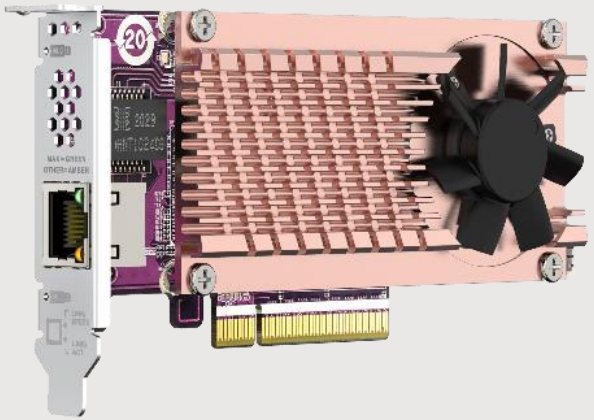
QM2-2S-220A
2 x M.2 SATA 6Gb/s



QM2-2P-344
2 x M.2 NVMe Gen3



QM2-2P10G1TB
2 x M.2 NVMe Gen3
1 x 10G/2.5G/1G/100M



Various accessories to mount the NAS, protect against SSD failure, or increase the NAS storage capacity

RAIL-B02

Optional rail-kit that is compliant with ANSI/EIA-RS-310-D.

QDA-A2AR

2 x 2.5-inch SATA 6Gb/s to 1 x 3.5-inch SATA 6Gb/s hardware RAID 0/1 adapter

TR & TL expansion enclosures

Flexibly use USB or multi-channel SATA to expand NAS storage space

TR-004U

TL-R1200C-RP

TL-R400S

TL-R1200S-RP

With the same LAN cable, 2.5GbE switch for multi-device environment

QSW-1108-8T (Unmanaged)
8 x 2.5GbE
RJ45 Multi-Gig

Fanless & metal housing

QSW-1208-8C (Unmanaged**)**
8 x 10G/5G/2.5G
RJ45 Multi-Gig

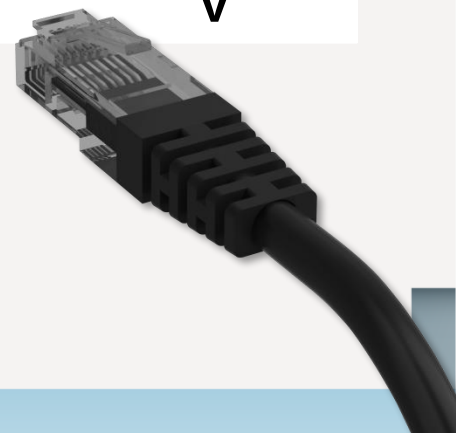
QSW-1105-5T (Unmanaged)
5 x 2.5G
RJ45 Multi-Gig

QSW-M408-4C (Managed)
4 x 10G/5G/2.5G
RJ45 Multi-Gig

QSW-M408-2C (Managed)
2 x 10G/5G/2.5G
RJ45 Multi-Gig

Use the existing wiring infrastructure to support 2.5GbE

	CAT 5e	CAT 6	CAT 6A
100M	V	V	V
1G	V	V	V
2.5G	V	V	V
5G	V	V	V



Economical and flexible QNAP expansion enclosures for multi-platform usage

QNAP TR RAID and TL JBOD enclosures have many advantages in the market for NAS capacity expansion.

- **Bigger capacity**
  - 4 & 12-bay choices
  - NAS can support up to two expansion enclosures
- **Higher speed**
  - USB 3.2 Gen 2 10Gb/s
- **Better compatibility:**
  - QNAP External RAID Manager and JBOD Manager for monitoring the JBOD status

USB interface

TR-004U

TL-R1200C-RP

SFF-8088 multi-ch SATA interface

TL-R400S

TL-R1200S-RP

LIVE DEMO

QNAP

TS-x64U

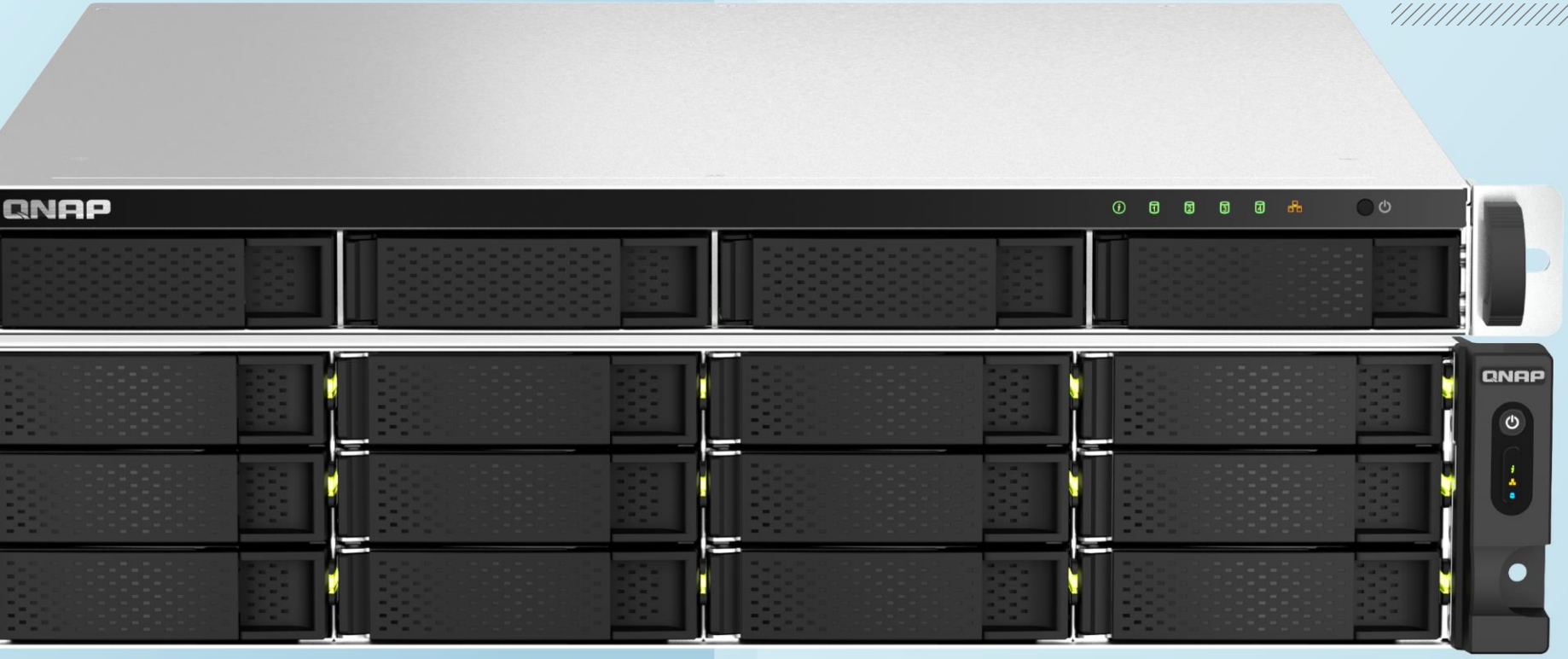
4/12-bay Rackmount NAS Series

QNAP

TS-x64U

4/12-bay Rackmount NAS Series

Lowering TCO: backup, sharing, VM hosting and more free features in a single NAS.



Backup or sync data at your choice

macOS

- Time Machine
- Qsync

Windows

- NetBak Replicator
- Qsync

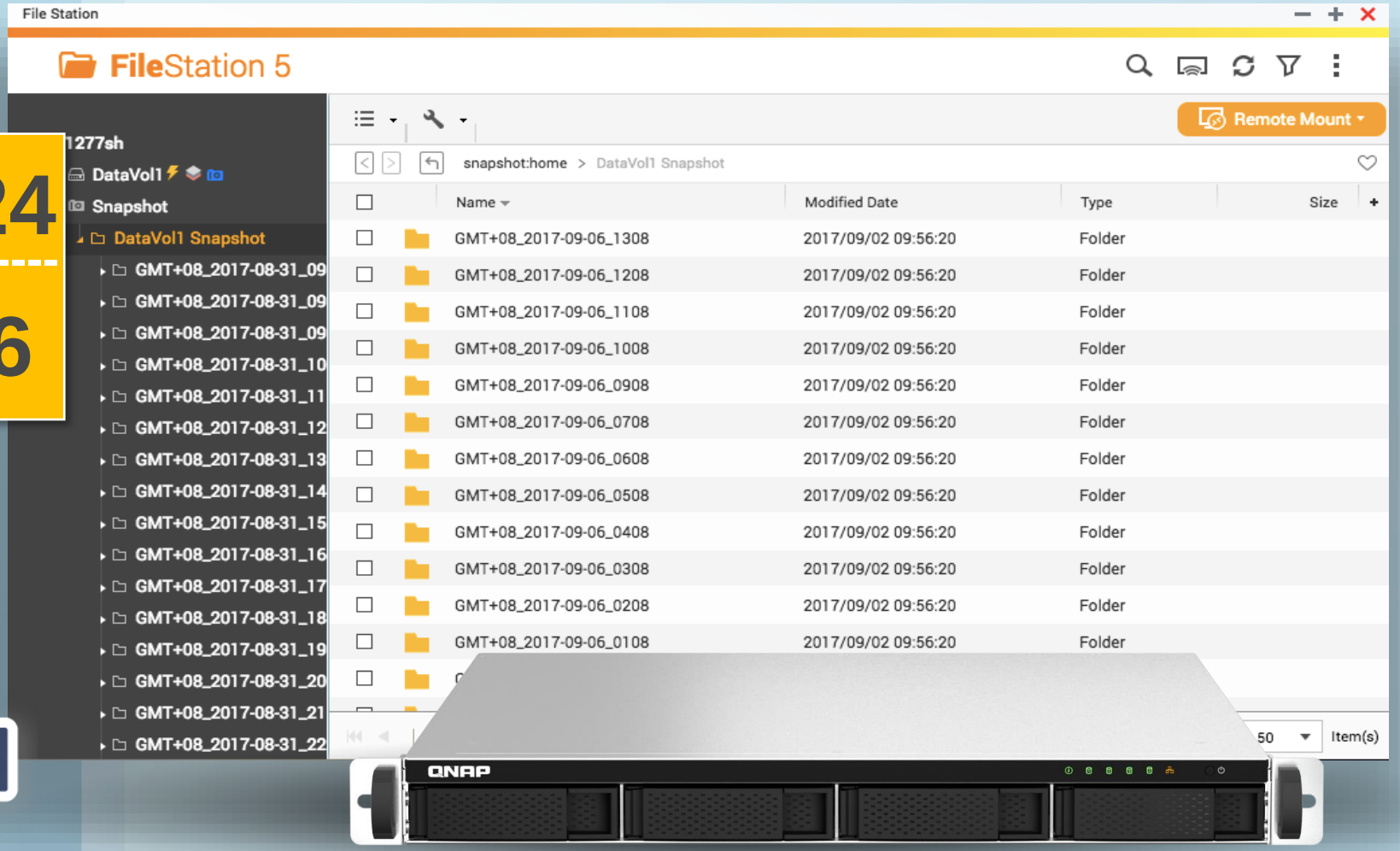
Protection against ransomware!

Scheduled or real-time backup/sync

Business-level snapshot

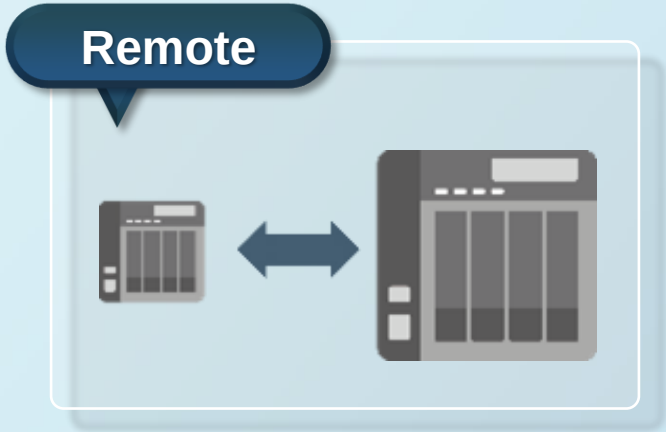
Snapshot # per NAS	1024
Snapshot # Volume/LUN	256

Best choice!



Backup the NAS data

Hybrid Backup Sync



QVR Elite Smart Surveillance Solution

6,000+ IP cameras

2 embedded channels

Please go to the QVR NAS Selector to calculate the supported recording channels.

Subscription-based BYOD license

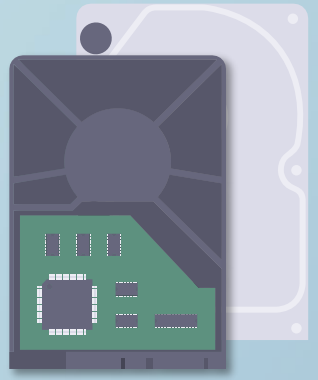
Support QVR Face AI qpkg

Expand storage via VJBOD

iSCSI 2.5GbE

Max 8 remote NAS

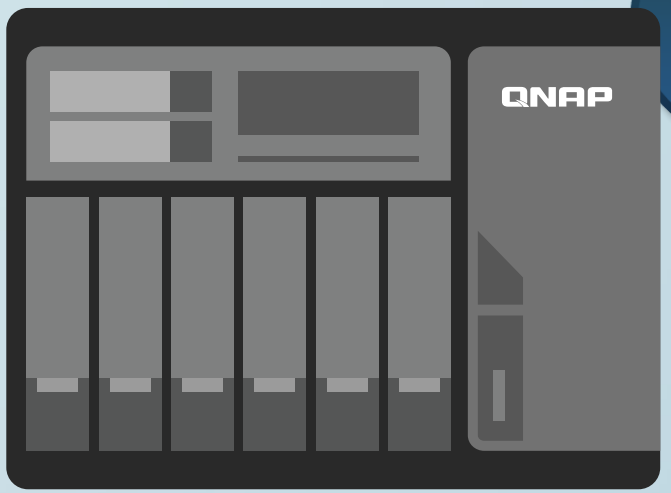
x8

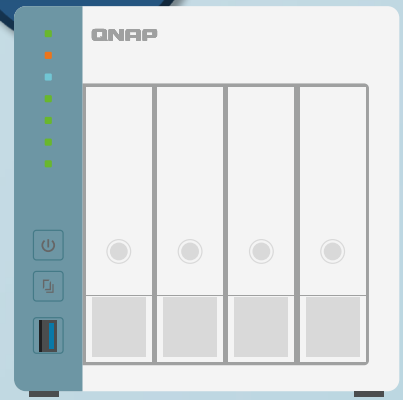


VJBOD

VJBOD

Use other NAS capacity to expand own capacity via network connection





HybridDesk Station for various A/V needs

Keyboard & Mouse

Versatile HybridDesk Station apps

System Mgmt.

- QTS
- FileStation HD

Surveillance

- QVR Smart Client

Comm. & Social

- Skype
- Facebook

Multimedia

- HD Player
- Clementine
- Spotify
- TuneIn Radio

Multimedia Mgmt.

- PhotoStation HD
- VideoStation HD
- MusicStation HD

Browser & Productivity

- Chrome
- Firefox
- LibreOffice

Linux Station turns NAS into a Ubuntu PC

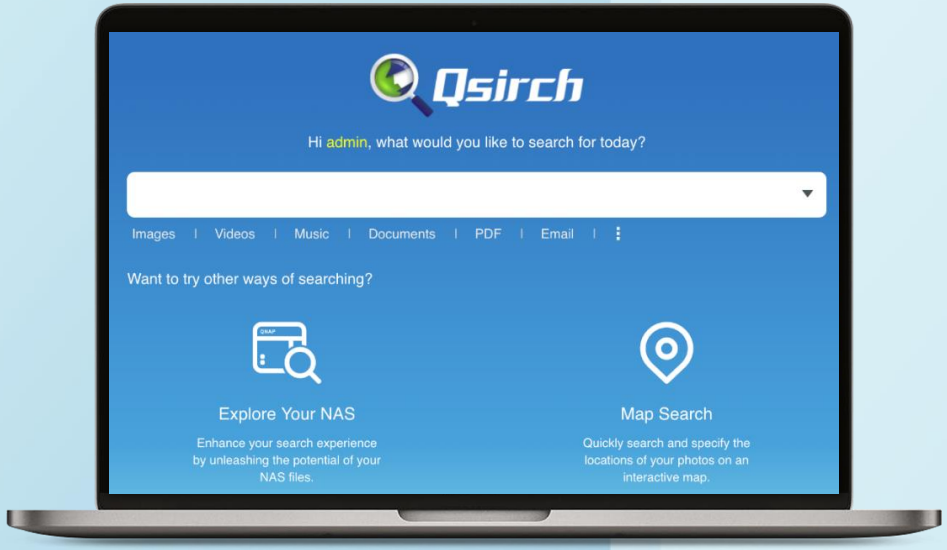
1 HDMI output from NAS to a monitor

Multi-version Ubuntu

- Ubuntu 18.04
- Ubuntu 20.04

2 Connect a USB keyboard and a mouse to the NAS to start using Ubuntu

Qsirch makes it easy to search for files in various ways



- Search within NAS and on the Internet
- Large file preview pane
- Advanced search for complex keyword search
- 35+ powerful filter conditions
- Easy steps from previewing to sharing

QuMagie smart photo albums and AI classification for different subjects

Classify photos into 400 different themes using Subject Detection : People, tags, dates, events, etc.

- Organize photos with similar faces using facial recognition.
- Helps company to quickly locate and share objects or projects.

Album view

Folder view

TS-1264U-RP

QTS 5 Increase the level of security

- Support TLS 1.3
- The admin account is disabled by default
- Advanced encryption suite support
- adjusted safety settings and more stronger safety protection options
- SSH Key login
- Firmware automatic updates (recommended updates, automatic updates)
- App automatic updates (recommended updates, automatic updates)

QNAP

TS-x64U

Make the smart move in your 2022 IT investments!

The future-proof Intel N5105/N5095 quad-core NAS with dual 2.5GbE ports and PCIe expansion.

intel. CELERON

HDMI

2.5GbE

PCIe Gen3

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