QNAP

4/8-bay 12-inch short depth rackmount NAS series

TS-x64eU

Launched

Intel N5105/N5095 2.9GHz quad-core NAS supports
dual 2.5GbE ports and M.2 NVMe SSD cache

TS-864eU / TS-864eU-RP

TS-464eU

4/8-bay 12-inch short depth rackmount NAS series

TS-x64eU

Hardware overview

TS-864eU / TS-864eU-RP

TS-464eU

QNAP

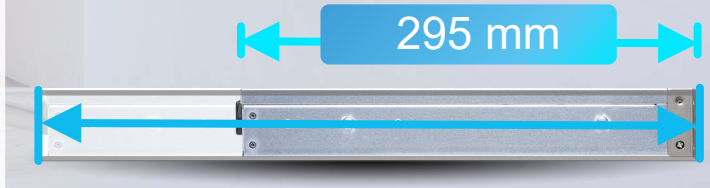
Flexibly deployable short-depth chassis TS-x64eU

12-inch depth,
40% less than traditional chassis

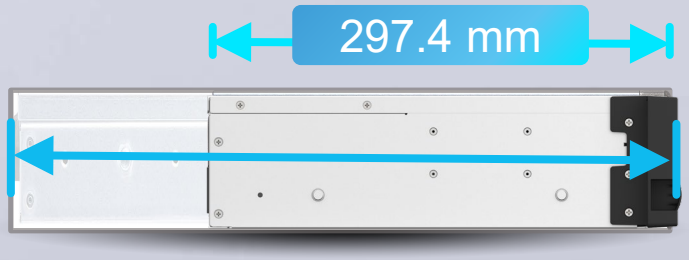
TS-464eU

TS-864eU / TS-864eU-RP

Compatible with standard ANSI/EIA-RS-310-D 19-inch rack
With optional
RAIL-B02 Rail Kits



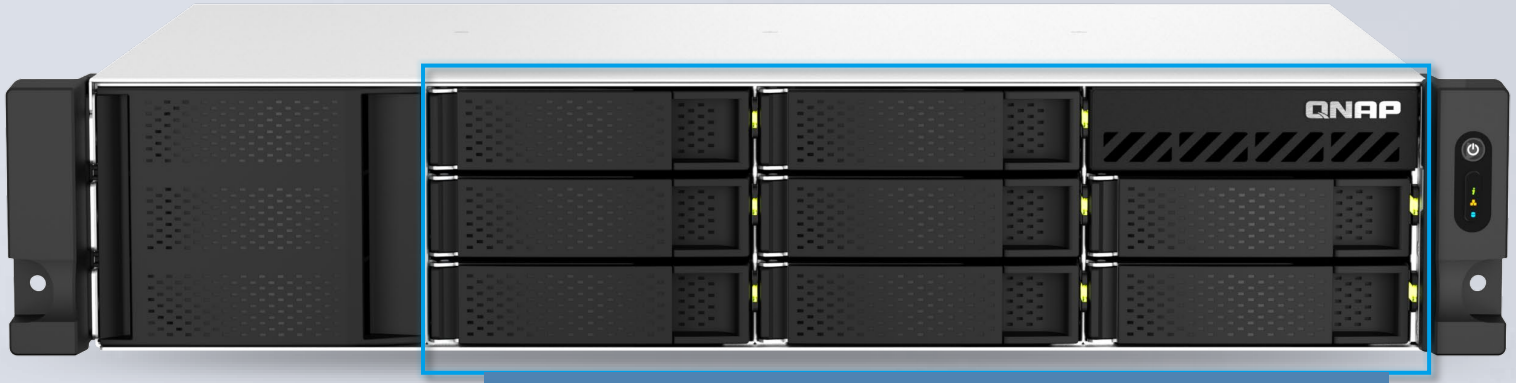
499mm TS-464eU



499mm TS-864eU / TS-864eU-RP

TS-x64eU front views

TS-864eU / TS-864eU-RP



8 x 3.5-inch/2.5-inch SATA 6Gb/s HDD/SSD bays

Power button

TS-464eU

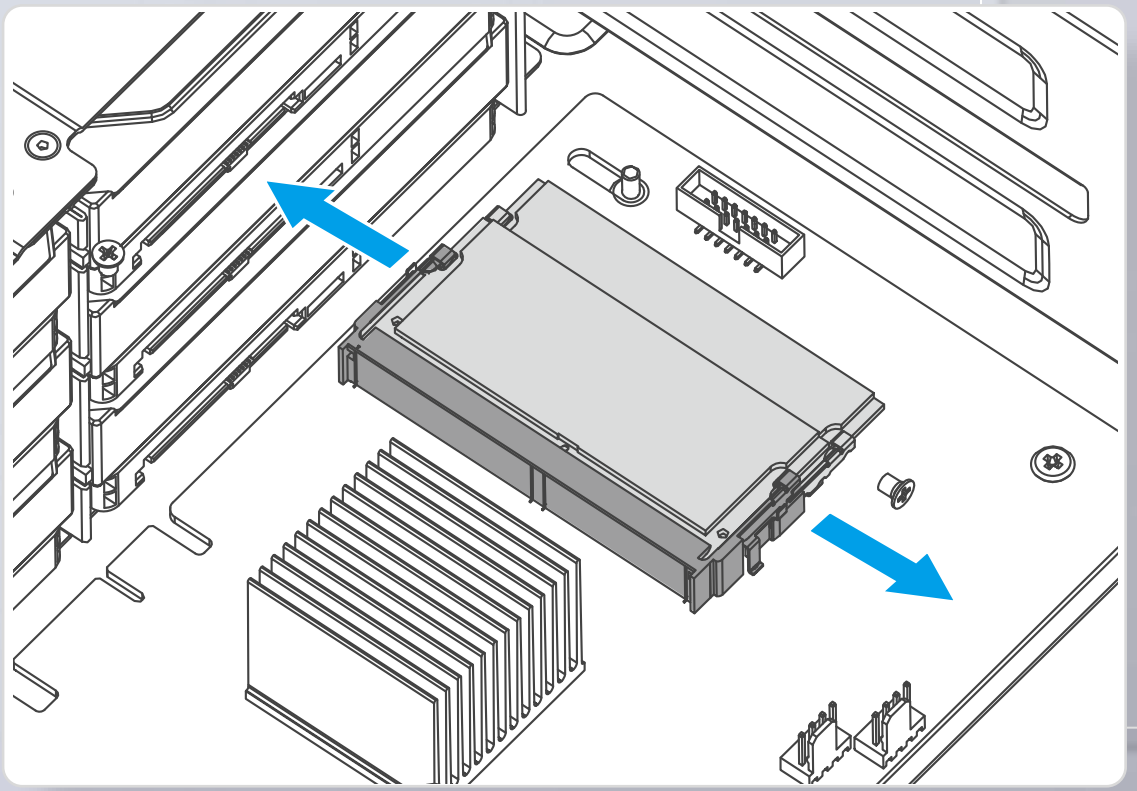
4 x 3.5-inch/2.5-inch SATA 6Gb/s HDD/SSD bays

LED indicators:
HDD 1~4/8,
Status, LAN, expansion device

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

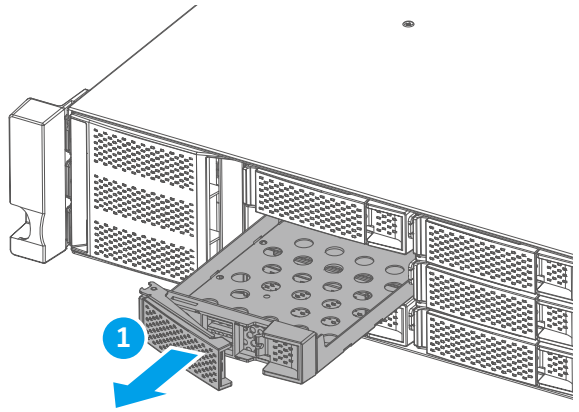
TS-464eU-4G
4 GB RAM (1 x 4 GB)

TS-864eU-4G
4 GB RAM (1 x 4 GB)

TS-864eU-RP-4G
4 GB RAM (1 x 4 GB)

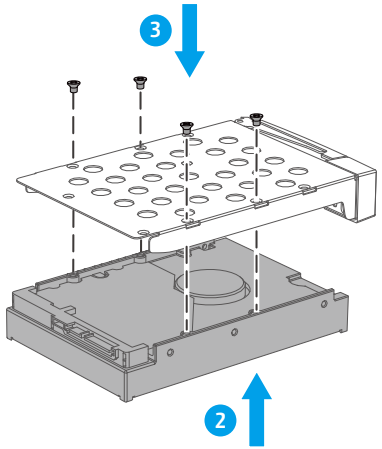
Easy to install HDDs and SSDs in few steps

STEP | 01

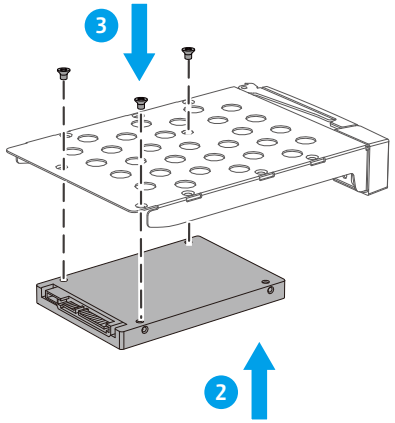


STEP | 02

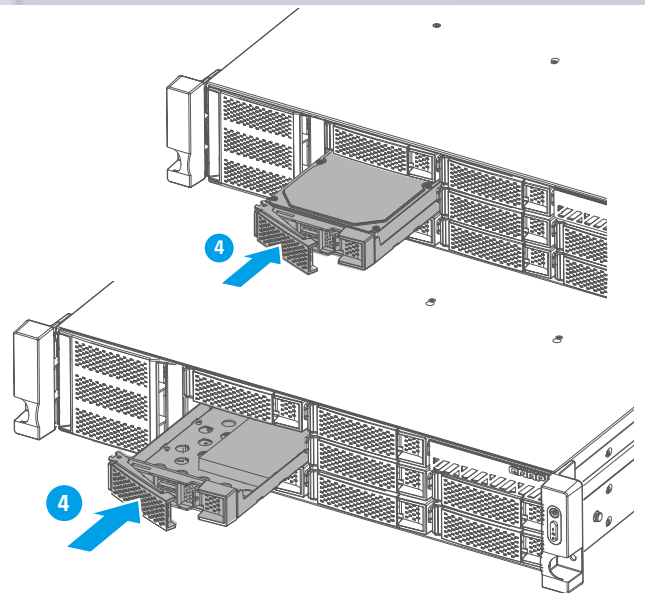
3.5-inch HDD



2.5-inch HDD / SSD

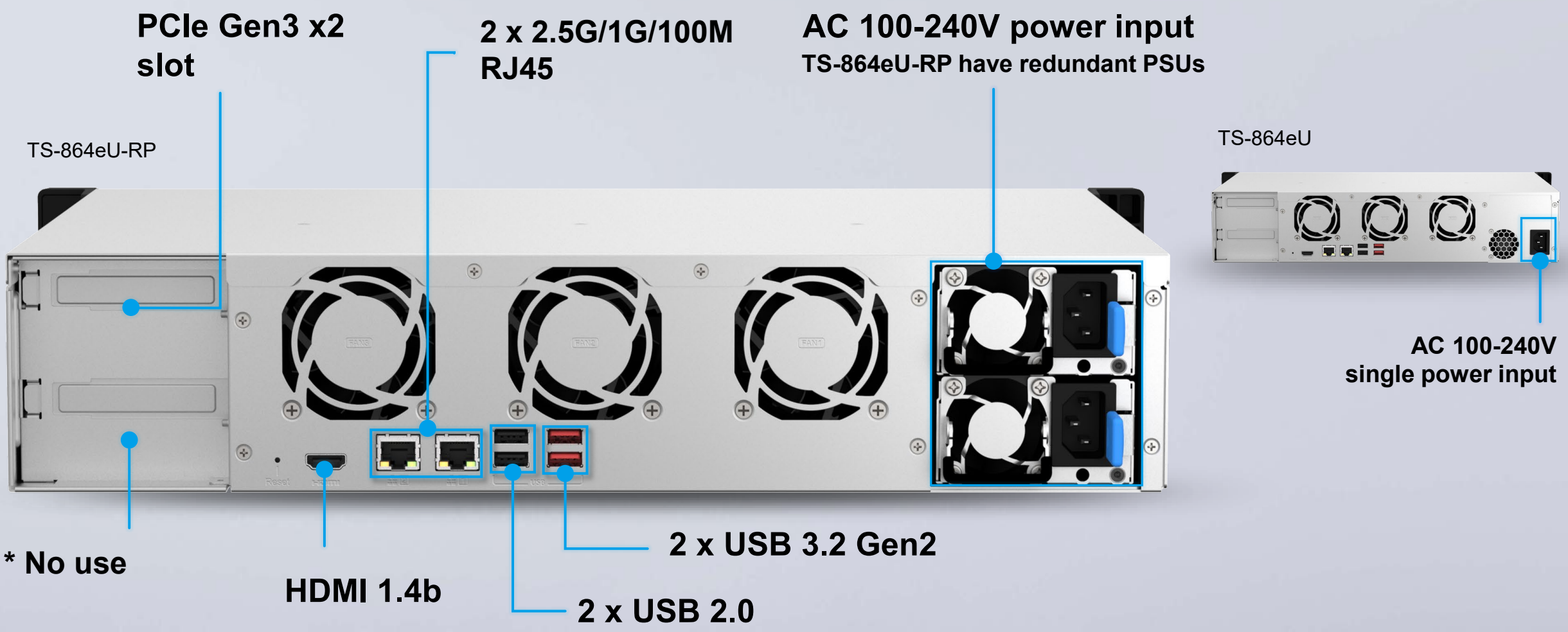


STEP | 03

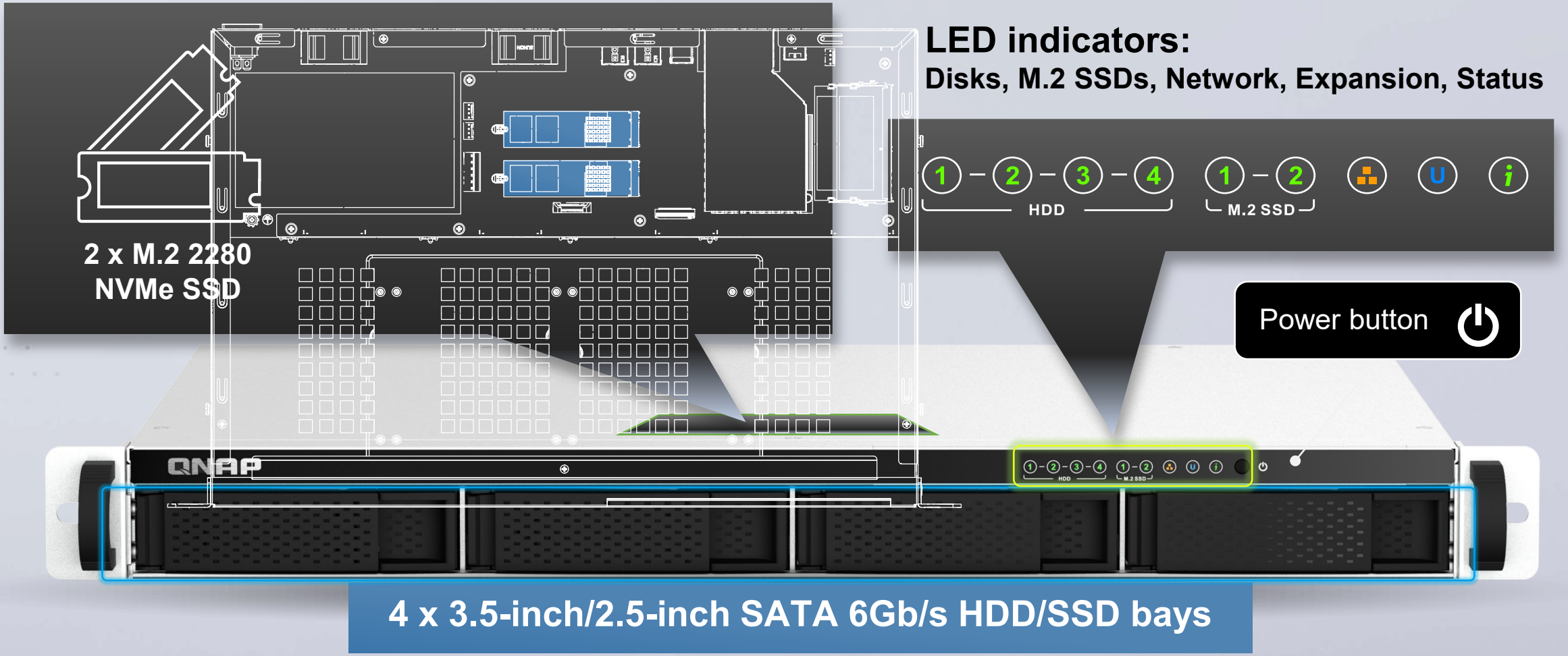


TS-464eU rear views

TS-864eU / TS-864eU-RP rear views

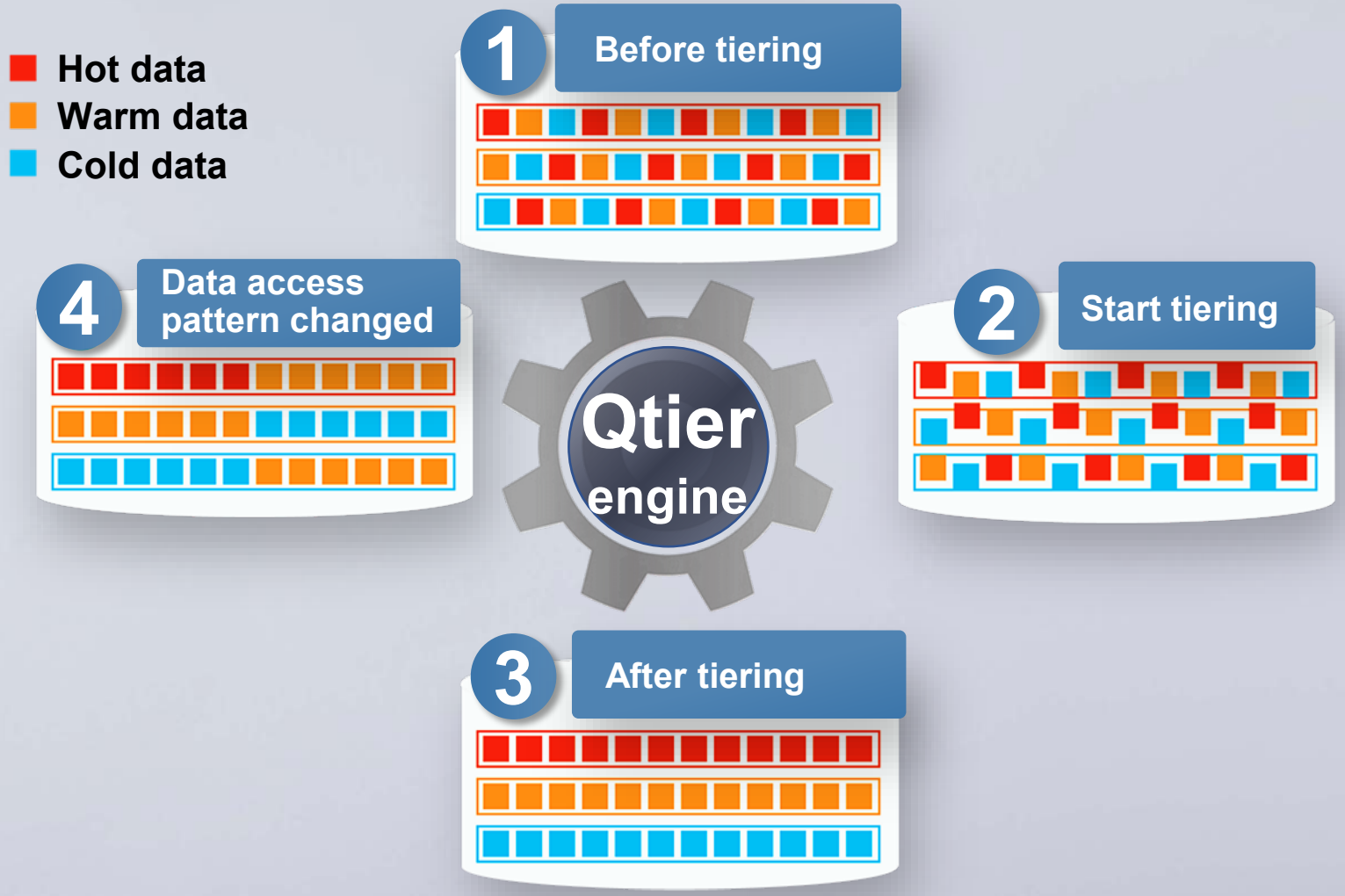


1U TS-464eU for Qtier & SSD Cache



Qtier (Auto-Tiering) combines performance & capacity

- QNAP NAS allows the combination of SSD and HDD RAID into the same pool and migrate data automatically based on accessing pattern.
- Provide higher capacity as SSDs can be used to store data



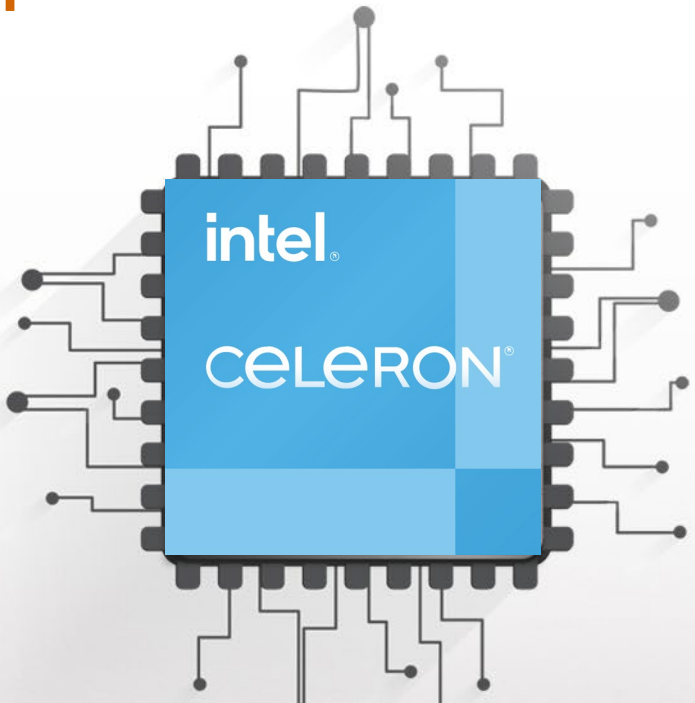
QTS 5.0 + Linux kernel 5.10

To provide the best performance of Intel® Celeron® N5105/N5095, TS-x64eU 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-x64eU functionality.

AES-NI encryption
Volume & folder support

GPU up to 800 MHz
UHD Graphics

N5105/ N5095
Jasper Lake

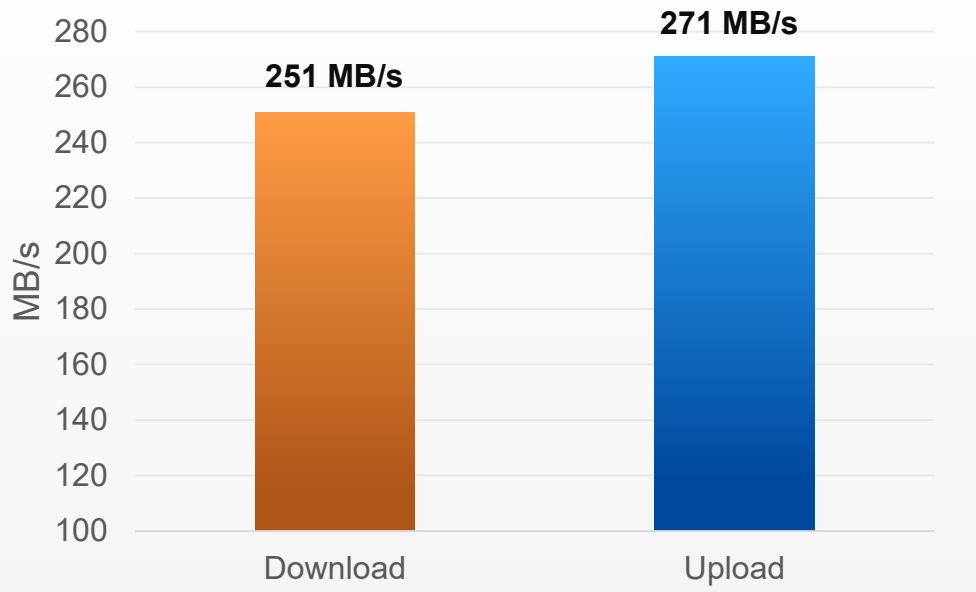


4-core
4-thread

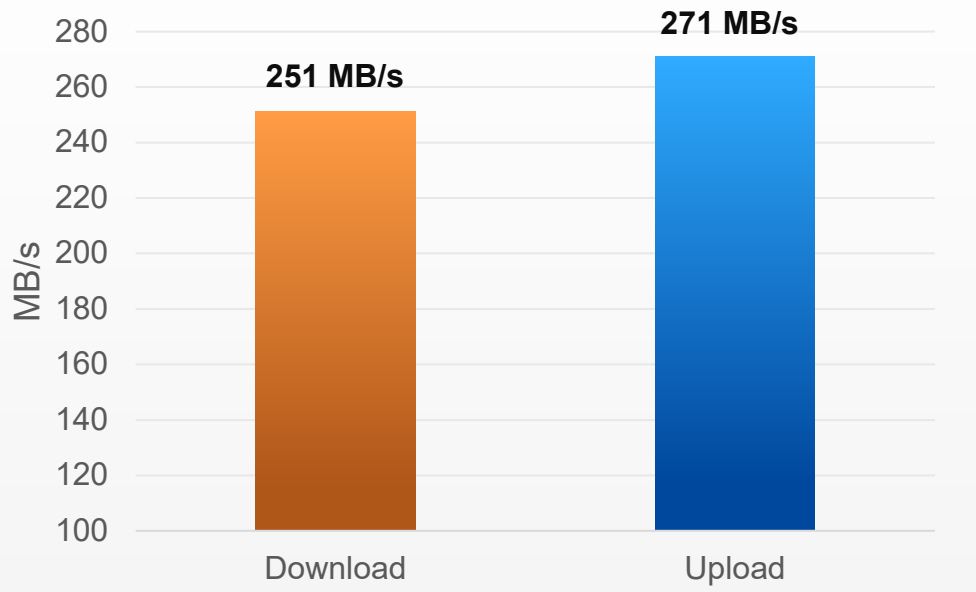
2.9GHz
Burst

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

1 x 2.5GbE Windows file transfer



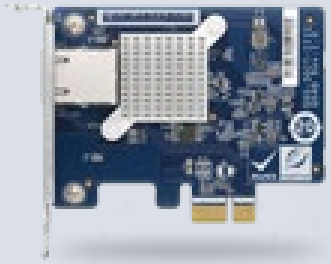
1 x 2.5GbE Windows file transfer Encrypted NAS volume



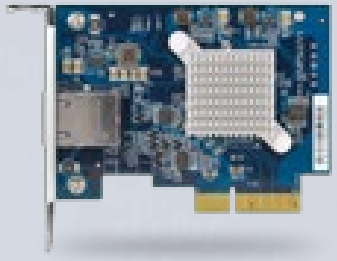
Tested in QNAP Labs. Figures may vary by environment.

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

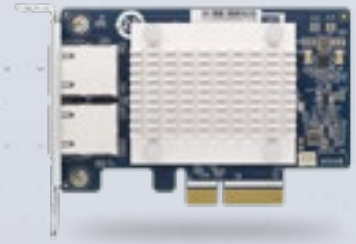
TS-864eU PCIe 3 slot for various 5GbE & 10GbE PCIe NICs to accommodate different environment



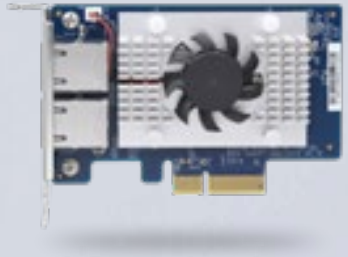
QXG-5G1T-111C
1 x 5G/2.5G/1G/100M RJ45



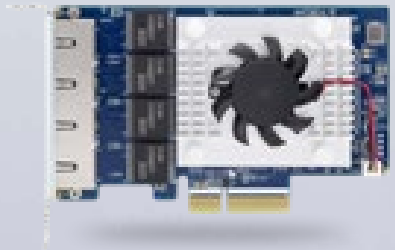
QXG-10G1T
1 x 10G/5G/2.5G/1G/100M RJ45



QXG-5G2T-111C
2 x 5G/2.5G/1G/100M RJ45



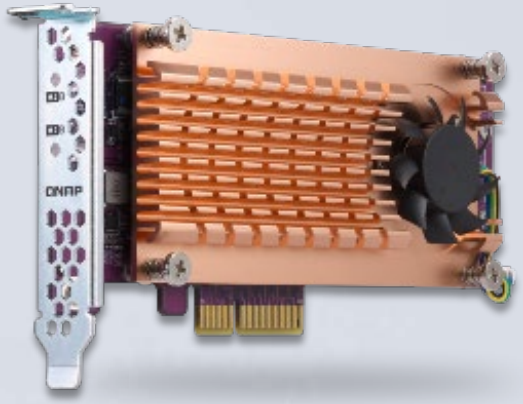
QXG-10G2T-107
2 x 10G/5G/2.5G/1G/100M RJ45



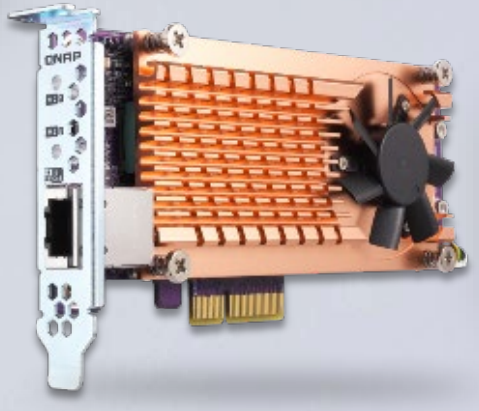
QXG-5G4T-111C
4 x 5G/2.5G/1G/100M RJ45

TS-864eU / TS-864eU-RP

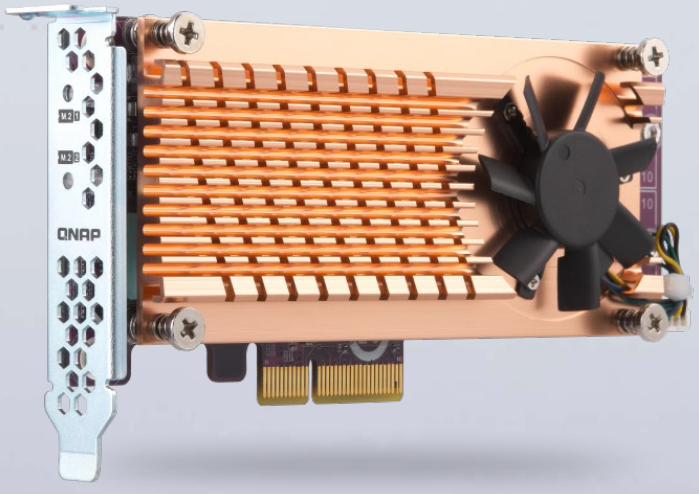
TS-864eU Add two M.2 SSDs with a QM2 PCIe adapter and use SSD cache to enhance IOPS and performance of processing small files



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



QM2-2S10G1TA
2 x M.2 SATA 6Gb/s
1 x 10G/5G/2.5G/1G RJ45



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

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

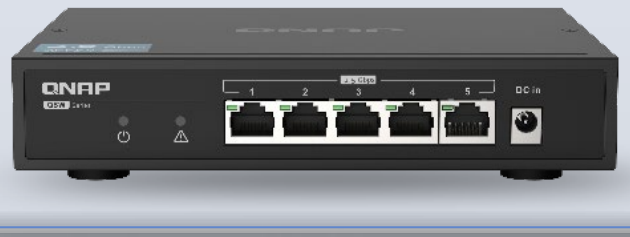
TR-004U

TL-R1200C-RP

TL-R400S

TL-R1200S-RP

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



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

Fanless & metal housing

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

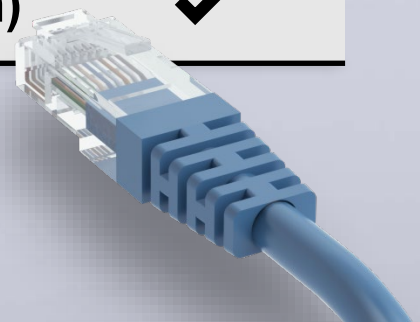
QSW-308-1C (Unmanaged)
1 x 10G/5G/2.5G
RJ45 Multi-Gig

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	✔	✔	✔
1G	✔	✔	✔
2.5G	✔	✔	✔
5G	✔	✔	✔
10G	X	✔(55m)	✔



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

TS-464eU excluding

4/8-bay 12-inch short depth rackmount NAS series

TS-x64eU

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

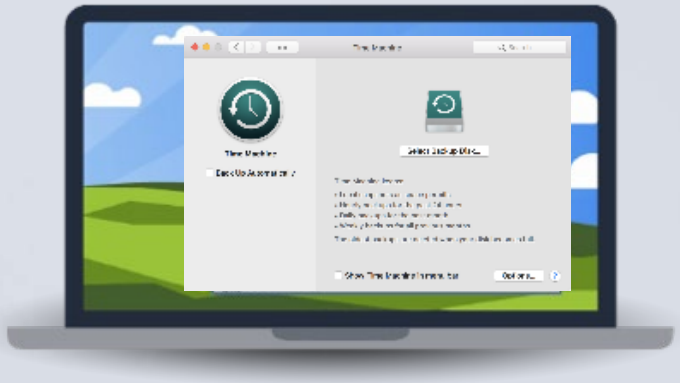
TS-864eU / TS-864eU-RP

TS-464eU

QNAP

Backup or sync data at your choice

macOS



- Time Machine
- Qsync

Windows

- NetBak Replicator
- Qsync

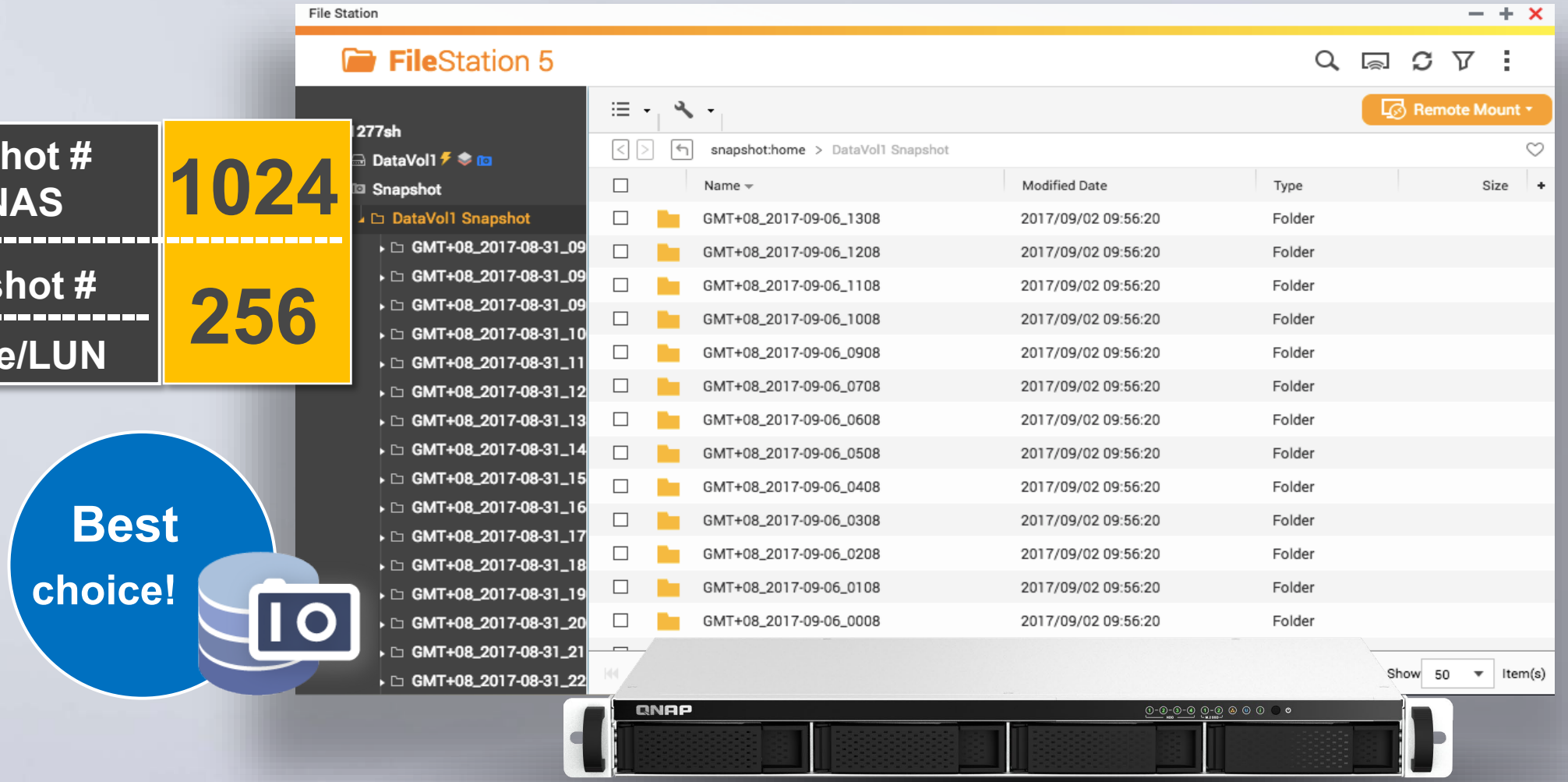
Protection against ransomware!

Scheduled or real-time backup/sync

Business-level snapshot

Snapshot # per NAS	1024
Snapshot # Volume/LUN	256

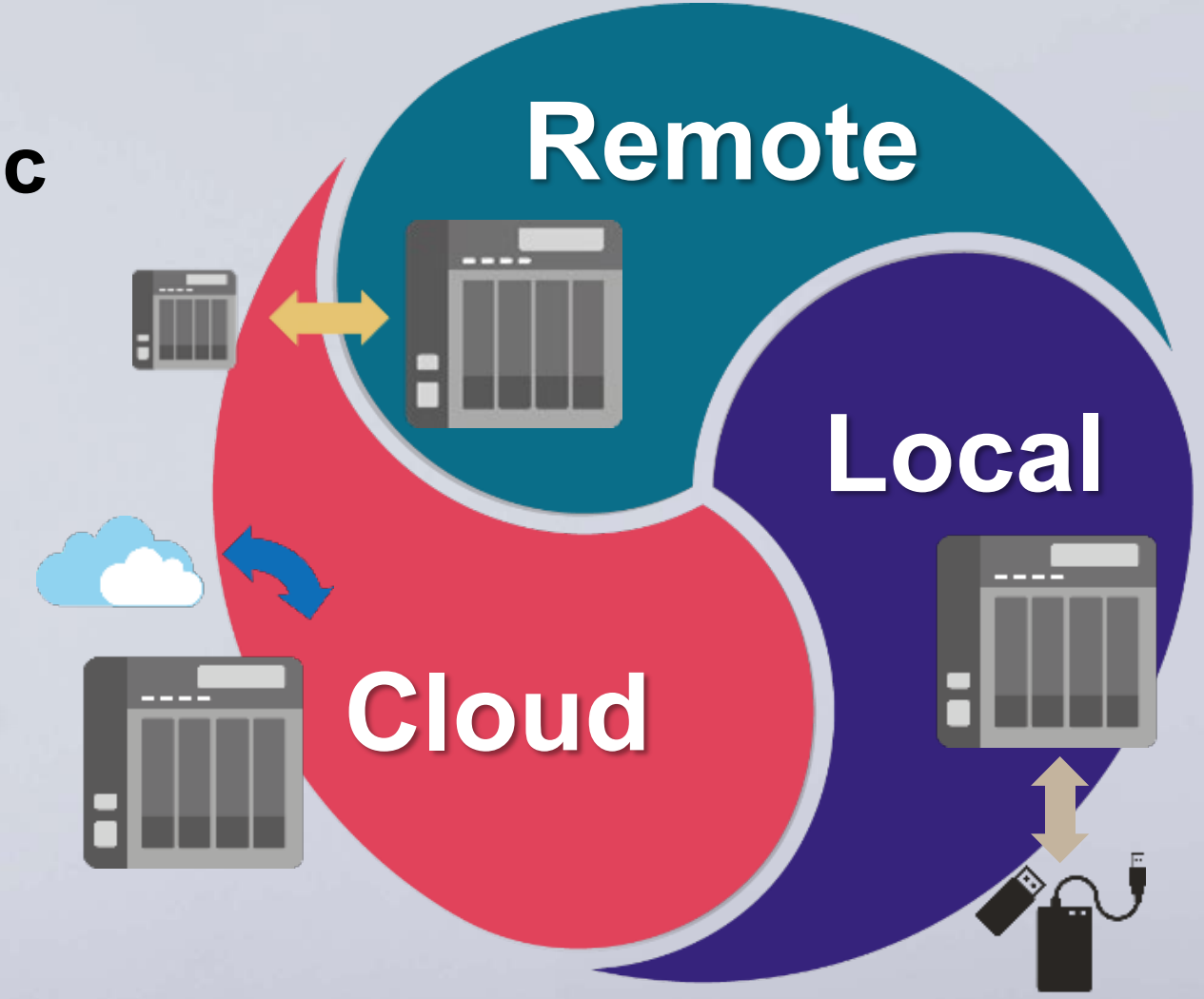
Best choice!



Backup the NAS data

Hybrid Backup Sync

TS-464eU



QVR Elite Smart Surveillance Solution

6,000+ IP cameras

2 embedded channels

Subscription-based BYOD license

Support QVR Face AI qpkg

TS-864eU/ TS-864eU-RP

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

Expand storage via VJBOD

iSCSI 2.5GbE

Max 8 remote NAS

VJBOD

VJBOD

Use other NAS capacity to expand own capacity via network connection

HybridDesk Station for various A/V needs

Versatile HybridDesk Station apps

System Mgmt.

- QTS
- FileStation HD

Surveillance

- QVR Pro 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

1 Web

2 Mobile

3 Mac Finder

4 Browser

QuMagie smart photo albums and AI classification for different subjects

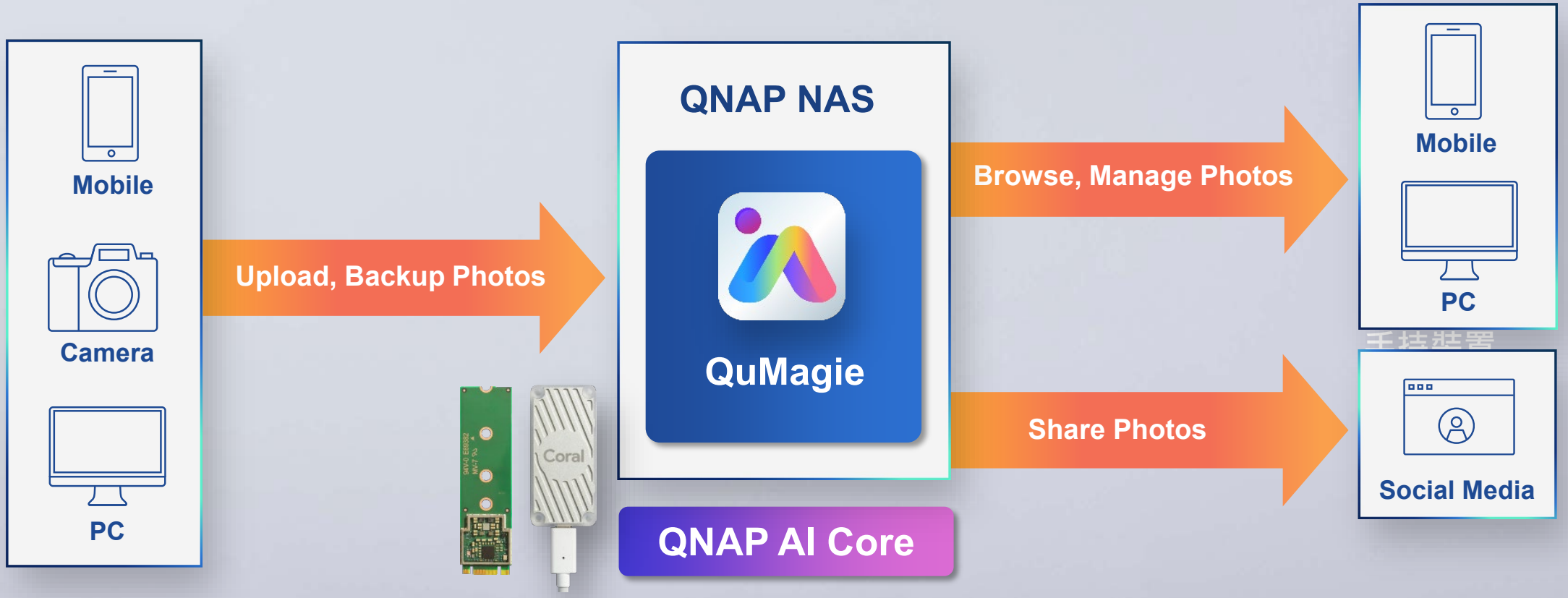
Classify photos into 400 different themes using Subject Detection : People, tags, dates, events, etc.

TS-464eU

QuMagie

What is QuMagie?

- QuMagie is an AI-powered photo management solution with flexible storage space
- QuMagie is a free application within QNAP NAS system



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)

TS-864eU v.s. TS-864eU-RP v.s. TS-853DU-RP

3-year-warranty NEW

3-year-warranty NEW

3-year-warranty

Model	TS-864eU	TS-864eU-RP	TS-853DU-RP
Depth	297.4 mm	297.4 mm	423.8 mm
CPU	Intel® Celeron® N5105/N5095	Intel® Celeron® N5105/N5095	Intel® Celeron® J4125
Memory	4 GB SO-DIMM DDR4 (1 x 4 GB)	4 GB SO-DIMM DDR4 (1 x 4 GB)	4 GB SO-DIMM DDR4 (1 x 4 GB)
Max memory	16 GB (2 x 8 GB)	16 GB (2 x 8 GB)	8 GB (2 x 4 GB)
Ethernet ports	2 x 2.5G/1G/100M RJ45	2 x 2.5G/1G/100M RJ45	2 x 2.5G/1G/100M RJ45
HDMI output	1 x HDMI 1.4b	1 x HDMI 1.4b	1 x HDMI 1.4b
M.2 slots	NA	NA	NA
PCIe Slot	PCIe Gen 3 x2	PCIe Gen 3 x2	PCIe Gen 2 x2
Power	1 x 250W	2 x 300W	2 x 300W

TS-464eU v.s. TS-451DeU v.s. TS-464U v.s. TS-464U-RP

	3-year-warranty NEW	3-year-warranty	3-year-warranty	3-year-warranty
Model	**TS-464eU**	**TS-451DeU**	**TS-464U**	**TS-464U-RP**
Depth	295 mm	295 mm	483.9 mm	508.7 mm
CPU	Intel® Celeron® N5105/N5095	Intel® Celeron® J4025	Intel® Celeron® N5105/N5095	Intel® Celeron® N5105/N5095
Memory	4 GB SO-DIMM DDR4 (1 x 4 GB)	2 GB SO-DIMM DDR4 (1 x 2 GB)	4 GB SO-DIMM DDR4 (1 x 4 GB)	4 GB SO-DIMM DDR4 (1 x 4 GB)
Max memory	16 GB (2 x 8 GB)	8 GB (2 x 4 GB)	16 GB (2 x 8 GB)	16 GB (2 x 8 GB)
Ethernet ports	2 x 2.5G/1G/100M RJ45	2 x 2.5G/1G/100M RJ45	2 x 2.5G/1G/100M RJ45	2 x 2.5G/1G/100M RJ45
HDMI output	1 x HDMI 1.4b	NA	1 x HDMI 1.4b	1 x HDMI 1.4b
M.2 slots	2 x M.2 NVMe	2 x M.2 SATA	NA	NA
PCIe Slot	NA	NA	1 x PCIe Gen3 x2	1 x PCIe Gen3 x2

4/8-bay 12-inch short depth rackmount NAS series

TS-x64eU

Launched

Intel N5105/N5095 2.9GHz quad-core NAS supports dual 2.5GbE ports and M.2 NVMe SSD cache

intel. CELERON

HDMI

2.5GbE

TS-864eU / TS-864eU-RP

PCIe

TS-464eU

M.2 SSD

QNAP

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