

QNAP

SMB 9 Bay NAS

TS-963X

Smaller Size
Full Performance

5 x 3.5" + 4 x 2.5" bays in compact chassis
10GBASE-T and Qtier automated storage tiering



SSD gaining popularity

Unit in millions **SSD and HDD global sales & forecast**



SSD advantages compared to HDD

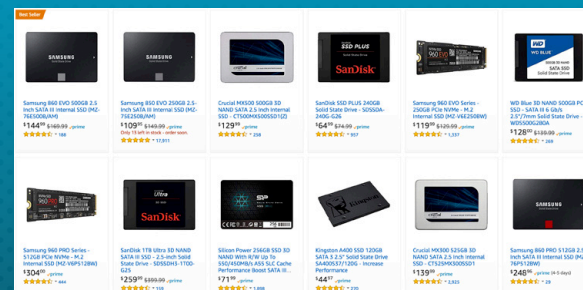
- High performance and fast response
- No mechanical moving parts means less prone to shock and vibration
- Thin and light weight
- Lower power consumption

2.5" SSD becomes more popular



2.5" SSD is commonly seen

- Long history since thin & light laptops
- Leftover parts after PC storage upgrade
- Highest exposure and discount on e-shops

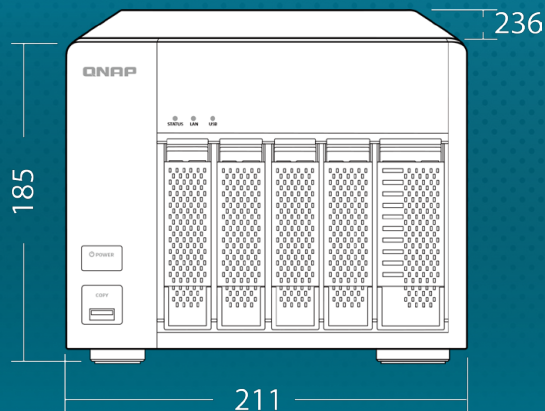


Finely crafted with the most capacity



5-bay TS-563

185 x 211 x 236 mm



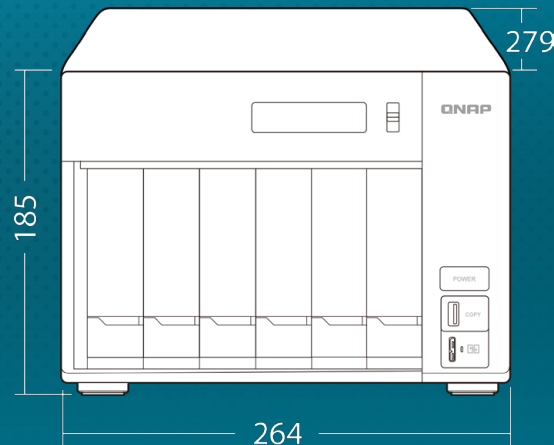
9-bay TS-963X

182 x 217 x 236 mm



6-bay TVS-673e

185 x 264 x 279 mm



AMD 4-core 2.0 GHz embedded SoC



64-bit quad-core 2.0 GHz
Long-term supply from AMD

- ❖ AES-NI encryption acceleration
- ❖ 2 x SODIMM DDR3L slots, up to

16GB
(2 x 8GB)

TS-963X-2G: 1 x 2GB DDR3L-1600
TS-963X-8G: 1 x 8GB DDR3L-1600



GX-420MC

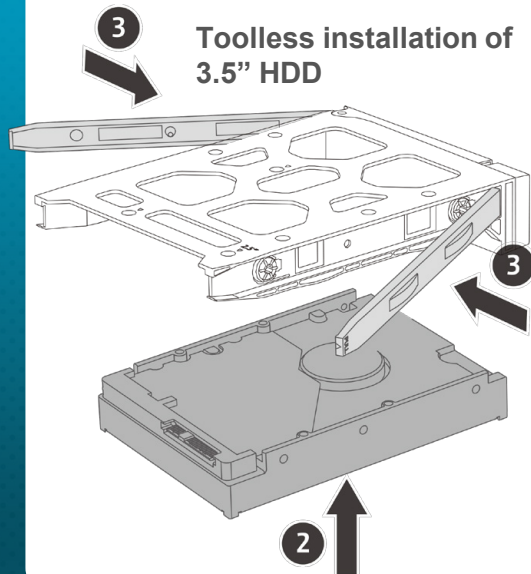


TS-963X front view

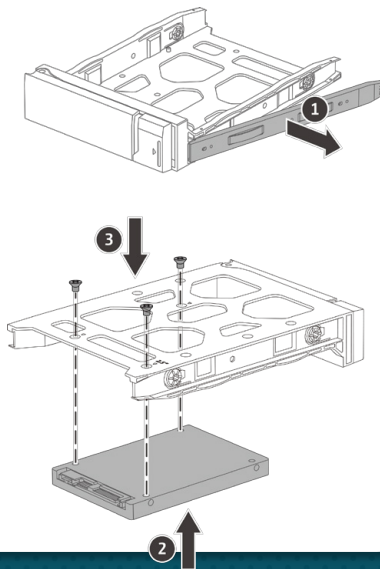


Install HDD and SSD in a snap

3.5" HDD tray

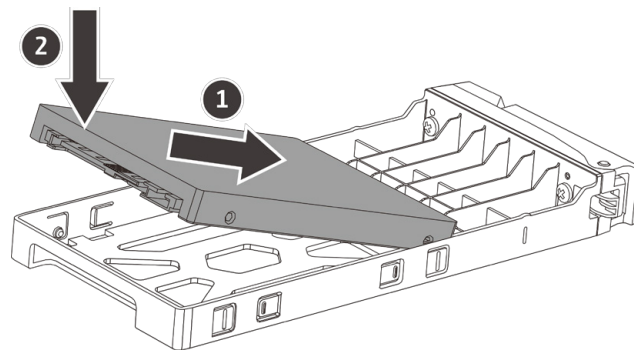


Also supports
2.5" SSD with screws

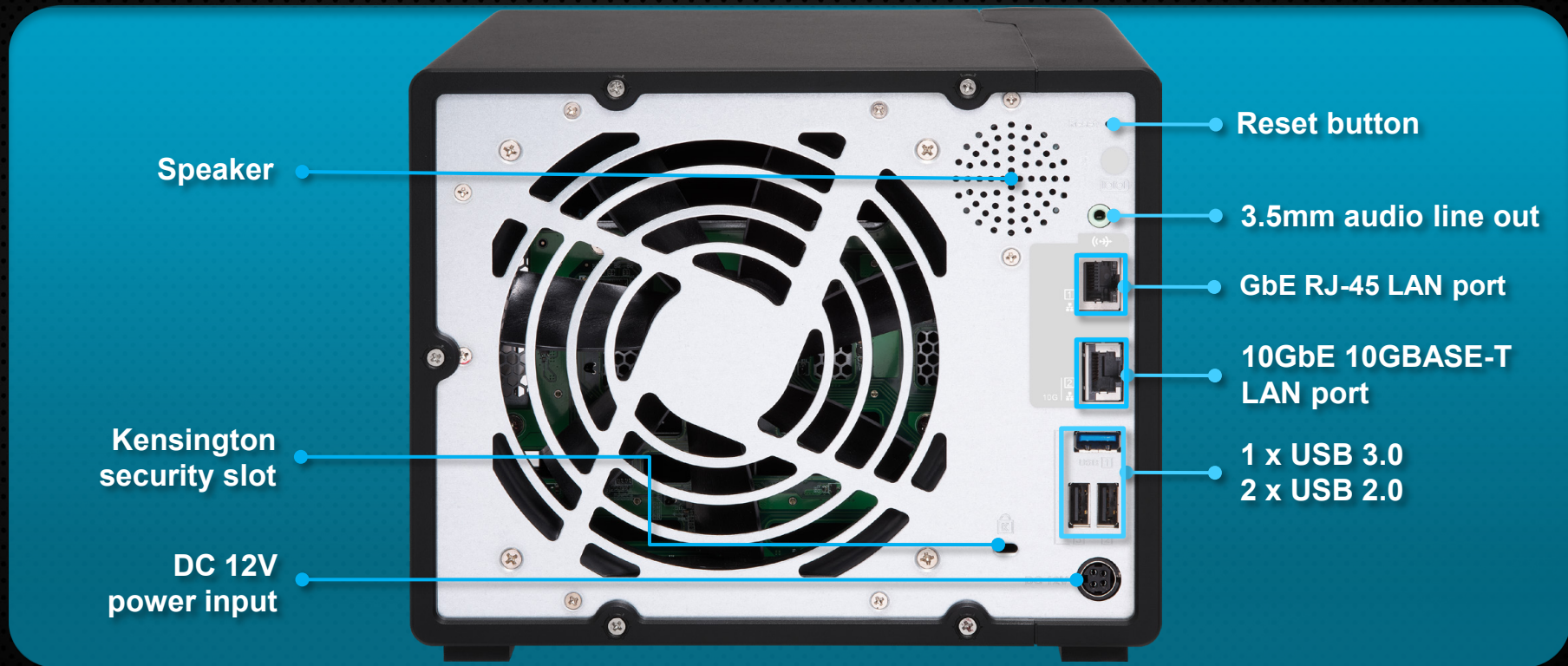


2.5" SSD tray

Toolless installation of 2.5" SSD



TS-963X rear view



Integrated Multi-Gigabit 10GBASE-T

AQUANTIA®

Five speeds



10G



5G/2.5G/1G/100M



Disconnected



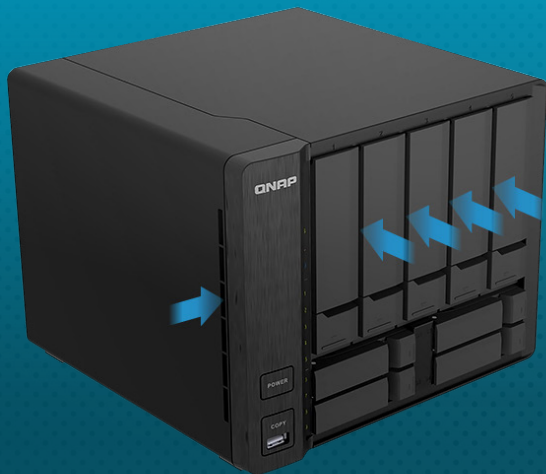
	CAT 5e	CAT 6	CAT 6A & CAT 7
100M	✓	✓	✓
1G	✓	✓	✓
2.5G	✓	✓	✓
5G	✓	✓	✓
10G	X	✓ (55m)	✓

Don't throw away your old cables yet !
Multi-Gigabit **NBASE-T** technology supported

QNAP

Keep NAS and drives cool and quiet

Multi air flows



Large 14cm smart
system fan





Demo

Memory upgrade

SSDs for auto-tiered hybrid architecture

5 x 3.5" HDDs for high capacity

Boost performance

All in one for SMB
2 x SSD for caching, RAID1

Boost applications' random IO
access

High capacity file and media
server 4 x SSD for Qtier, RAID5

Boost both sequential and
random access!

Boost
performance and
capacity

Switch from SSD cache to Qtier

Upgrade To Qtier Wizard

Add Tiers | Summary

Select Disk and Configuration:

Tier: Ultra-high Speed (SSD)

Enclosure Unit: NAS Host [available disk(s): 2/10]

☒	Disk	Model	Type	Bus Type	Capacity	Status
☒	SSD 1	KINGSTON SE50S3480G (S...	SSD	SATA	447.13 GB	Good
☒	SSD 2	KINGSTON SE50S3480G (S...	SSD	SATA	447.13 GB	Good

RAID Type: RAID 1 | Hot Spare Disk: None

Selected Disk: 2
Estimated Capacity: 437.63 GB

Cancel | Back | Next

Step

1

**Disable SSD
cache online**

Step

2

**Confirm SSDs that
will be added to the
storage pool**

Step

3

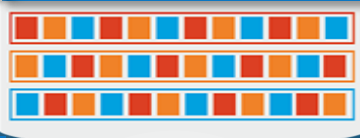
Upgrade to Qtier pool!

Qtier auto-tiering: speed and capacity

- Frequently-accessed data
- Infrequently-accessed data
- Rarely-accessed data

1

Before tiering:
Frequently-accessed data
performance is not optimized



2

Start data tiering



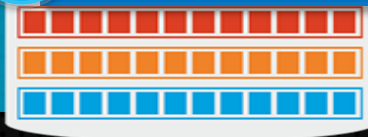
Automatically moves
data between different
tiers

SSD tier capacity
will not be limited by
RAM size

How Qtier
works

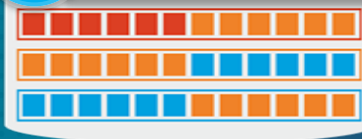
3

After tiering:
Frequently-accessed data
performance is optimized

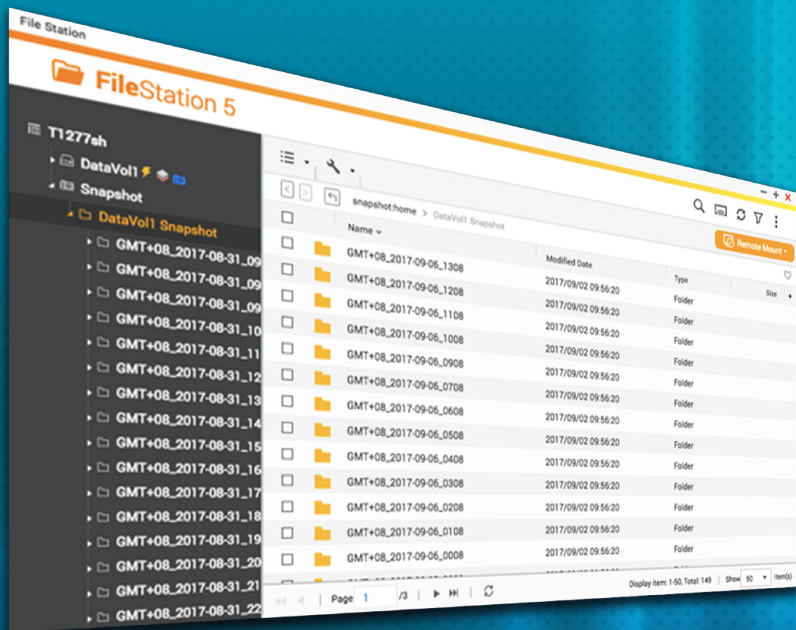


4

Changes in data
access patterns



Snapshots protect your data



For whole
NAS

2GB
RAM

64

For a single
volume/LUN

32

8GB
RAM

1024

256



Memory
upgrade is
easy!



QTS & virtualization improve productivity



Supports Windows/Linux VMs and containers



**Virtualization
Station**



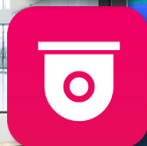
**Container
Station**



QVR Pro surveillance solution



5,000+ compatible IP cameras



8 free IP camera channels

128 max. IP camera channels

**QUSBCam2 for up to 1080P USB
webcam live view & recording**

Surveillance Station 5.1
4 free channels
40 max channels with licenses

Capacity expansion



VJBOD

TS-963X



USB 3.0

USB 3.0 connection

Max 8 VJBOD units

1GbE / 10GbE
iSCSI connection

Max 1
UX-800P/UX-500P unit



TS-831XU



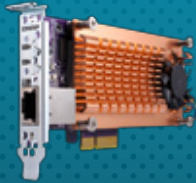
TS-831X



UX-800P

Support 10GbE 10GBASE-T

TS-563 + QM2-2S10G1T card



2 x M.2 SSD
= RAID 0/1

TS-963X integrates 10GBASE-T



4 x 2.5" SSD
= RAID 0/1/5/6/10

Fully support 10GbE high-speed networks, delivering a major speed increase for virtualization tasks, fast backup & restoration, and large-data applications.



Demo

10GbE data transfer

QNAP

Quad-core performance
with 10GbE 10GBASE-T and Qtier auto-tiering storage

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