

COMPUTING NETWORKING STORAGE

■ Product Selection Guide

QNAP Product Lineup

Primary Storage NAS | Dual Controller



ES2486dc

ES1686dc

Dual Processor NAS | Single Controller



TDS-16489U R2

Enterprise



TS-1886XU-RP

TES-1885U

TVS-EC2480U-SAS-RP R2

TVS-EC1680U-SAS-RP R2

TVS-EC1580MU-SAS-RP R2

TVS-EC1280U-SAS-RP R2

TS-2888X

SMB



TS-2483XU-RP

TS-1683XU-RP

TS-1283XU-RP

TS-983XU-RP/TS-983XU

TS-883XU-RP/TS-883XU

TS-2477XU-RP

TS-1677XU-RP

TS-1277XU-RP

TS-977XU-RP / TS-977XU

TS-877XU-RP / TS-877XU

TVS-2472XU-RP

TVS-1672XU-RP

TVS-1272XU-RP

TVS-972XU-RP/TVS-972XU

TVS-872XU-RP/TVS-872XU

TS-1673U / TS-1673U-RP

TS-1273U / TS-1273U-RP

TS-873U / TS-873U-RP

TS-1263XU / TS-1263XU-RP

TS-863XU / TS-863XU-RP

TS-463XU / TS-463XU -RP

TS-1232XU / TS-1232XU-RP

TS-832XU / TS-832XU-RP

TS-432XU / TS-432XU-RP

TS-1253DU-RP

TS-853DU-RP

TS-453DU / TS-453DU-RP

TS-451DeU

TS-h1283XU-RP

TS-h1277XU-RP

TS-h977XU-RP

Workgroup/
SOHO/Home



TS-431XeU

Expansion Units



REXP-1220U-RP

REXP-1620U-RP

EJ1600 v2

TL-R1200S-RP

TL-R400S

TL-R1200C-RP

QVR Pro Appliance



VS-2304 / VS-2308

VS-4312 / VS-4324

VS-6318 / VS-6336

VS-8324 / VS-8348

Thunderbolt
NAS



TVS-1582TU



TVS-1282T3



TVS-882BRT3



TVS-882ST3



TS-453BT3



TVS-872XT



TVS-672XT



TVS-472XT

SMB



TS-1685



TS-1635AX



TVS-1282



TVS-882



TVS-682



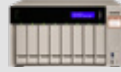
TS-1277



TS-877



TS-677



TVS-873e



TVS-673e



TVS-473e



TS-873



TS-673



TS-473



TVS-872N



TVS-672N



TS-653D



TS-453D



TS-253D



TS-453Be



TS-253Be



TS-351



TS-332X



TS-932X



TS-832X



TS-431KX



TS-431X3



TBS-453DX



HS-453DX

Workgroup/
SOHO/
Home



TS-328



TS-251D



TS-431P3



TS-231P3

Home



TS-128A



TS-431K



TS-231K



TS-131K



TS-230

Expansion
Units



TX-800P



REXP-1000 Pro



TR-004



TR-002



TL-D800C



TL-D1600S



TL-D800S



TL-D400S

ENTERPRISE

High-performance, unified and tiered storage solutions that offer ideal capacity for big data, 10GbE compatibility for next-generation networks, and a range of virtualization solutions to empower large-scale enterprises.

Utilize efficiency with unified tiered storage

QNAP's SAS-enabled Turbo NAS models feature class-leading hardware specifications, and allow tiered storage architecture to optimize storage utilization. You can flexibly arrange the storage system with SAS HDDs/SSDs for performance-intensive applications and SATA HDDs for bulk data storage. Configuring different tiers to hard drives on a single NAS according to different data usage delivers the best unified tiered storage solutions for businesses.

Optimize resources with maximized IT performance

QNAP provides powerful, reliable and scalable NAS solutions to fulfill data backup, cross-platform file sharing, virtualization applications, and more. SSD caching improves I/O performance and workflows of IOPS-demanding applications such as virtualization. With the IT Management Station, IT managers can easily manage multi-OS & multi-site IT assets, resources and applications.

Ensure uninterrupted business operations

QNAP's enterprise storage supports 10GbE/40GbE network, VMware®, Citrix® and Microsoft® virtualization solutions, flexible storage expansion, and high-level data protection features such as AES-256 volume-based encryption and access encryption.

Scale-up solution

QNAP expansion enclosures feature highly efficient and scalable solutions for expanding the total capacity of a NAS. Businesses can optimize their investment by purchasing the storage capacity needed at initial setup and expand its storage as needed to fit future requirements.

Virtual JBOD

VBOD (Virtual JBOD) is a capacity expansion technology that allows surplus storage resources of a QNAP NAS to be used to expand the storage space of another QNAP NAS, enabling you not only to create virtual storage pools and volumes on your local NAS, but also to achieve the highest storage utilization of the multiple QNAP NAS in your environment.





■ **Enterprise Server:**

ES2486dc, ES1686dc, ES1640dc v2

■ **High-end**

TS-1886XU-RP

TES-1885U

TDS-16489U R2

TVS-ECx80U-SAS R2 Series:

TVS-EC2480U-SAS-RP R2, TVS-EC1680U-SAS-RP R2,
TVS-EC1580MU-SAS-RP R2, TVS-EC1280U-SAS-RP R2

TS-2888X

QTS hero NAS Series:

TS-h977XU-RP, TS-h1277XU-RP, TS-h1283XU-RP

■ **Storage expansion unit**

REXP series:

REXP-1620U-RP,
REXP-1220U-RP,
REXP-1000 Pro,

EJ Series:

EJ1600 v2

SMB

Increase business efficiency with simplified management, cross-platform file share, comprehensive backup solutions, centralized account management, and RAID protection.

Encourage collaboration

A successful business relies heavily on smooth information sharing and effective knowledge management. The Turbo NAS is designed for high performance cross-platform file sharing and to achieve efficient client-to-client and device-to-device file sharing. Supporting SMB/CIFS, AFP, and NFS, the NAS enables seamless file sharing between computers with different operating systems without the worry of compatibility issues arising.

Backup and retrieve data on demand

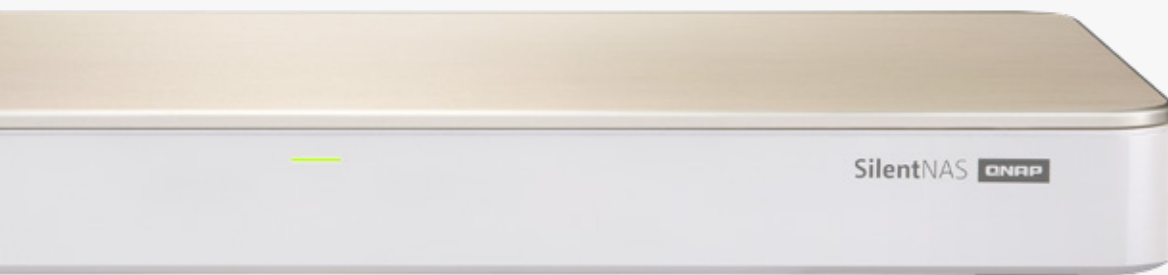
The NAS comes with a large storage capacity and excellent transfer speeds that make it ideal as an inclusive backup center. The data stored on the NAS can be backed up to external storage devices, remote servers, and various third-party cloud backup services for extra data protection.

Secure business data and simplify account management

With RAID protection and a range of security settings, the NAS offers a secure location to store mission-critical business data. The NAS supports folder access controls, user home folders, Windows ACL, Windows AD and LDAP directory services for centralized account management and authentication for network access.

Flexibly expand storage

Seamlessly expand the total storage space of your Turbo NAS on demand with QNAP expansion enclosures, or alternatively use the expansion enclosure as a budget-friendly external storage to backup the entire connected NAS.





■ High-end

TVS-x82 Series:

TVS-682 , TVS-882 , TVS-1282

Thunderbolt 3 NAS:

TVS-1282T3, TVS-882ST3, TVS-882BRT3, TVS-1582TU, TS-453BT3, TVS-872XT, TVS-672XT, TVS-472XT

TS-x63XU Series:

TS-1263XU-RP, TS-1263XU, TS-863XU-RP, TS-863XU, TS-463XU-RP, TS-463XU

TS-x83XU Series:

TS-2483XU-RP, TS-1683XU-RP, TS-1283XU-RP, TS-983XU-RP, TS-983XU, TS-883XU-RP, TS-883XU

TS-x77XU Series:

TS-1677XU-RP, TS-1277XU-RP, TS-877XU-RP, TS-877XU, TS-2477XU-RP, TS-977XU-RP, TS-977XU

TVS-x72XU Series:

TVS-2472XU-RP, TVS-1672XU-RP, TVS-1272XU-RP, TVS-972XU-RP, TVS-972XU, TVS-872XU-RP, TVS-872XU

TS-x73U Series:

TS-1673U, TS-1673U-RP, TS-1273U, TS-1273U-RP, TS-873U, TS-873U-RP

TVS-x73e Series:

TVS-873e, TVS-673e, TVS-473e

TS-1685 TS-1635AX TVS-882BR TS-332X

■ Middle-end

TS-x53DU Series:

TS-1253DU-RP, TS-853DU-RP, TS-453DU, TS-453DU-RP

TS-x32XU Series:

TS-1232XU, TS-1232XU-RP, TS-832XU, TS-832XU-RP, TS-432XU, TS-432XU-RP

TS-351

TS-x73 Series:

TS-873, TS-673, TS-473

HS-453DX / TBS-453DX

■ Storage expansion unit

TX Series (Thunderbolt 2 Expansion unit):

TX-800P

TR Series RAID Expansion Enclosure:

TR-004U, TR-004, TR-002

TL Series USB JBOD Enclosure:

TL-R1200C-RP, TL-D800C

TL Series SATA JBOD Enclosure:

TL-D1600S, TL-D800S, TL-D400S, TL-R1200S-RP, TL-R400S

HOME & SOHO

QNAP NAS acts as a complete home backup and multimedia solution for home/SOHO users. Users can experience effortless file backup, synchronization, management, file-share, multimedia-transcoding capabilities, and mobile access.

Easily sync and manage files

In the modern digital home, families have tons of photos, videos, and music files stored on different devices. The QNAP offers a collective space for every member of the family to store files and allows convenient file access and synchronization across multiple computing devices. With QNAP's QTS operating system, you will quickly discover how easy it is to use the NAS and the multi-window design.

Maximized multimedia entertainment at home

The QNAP NAS offers rich multimedia applications and can be used as a home multimedia hub. You can browse photos or play music and videos via DLNA, AirPlay, and Chromecast compatible devices. You can also enjoy your video collection on a HDTV with HD Station via HDMI. With a QNAP NAS in your living room, it's never been easier to build a personal home theater.

Transcode Full HD videos on-the-fly or offline

With the popularity of high-definition smartphones and cameras, video resolutions are increasing concurrently. Because the higher resolution file is larger in file size, it eventually requires more bandwidth to stream. QNAP's unique transcoding technology transcode videos with optimal resolutions for sharing and watching in order to save bandwidth whilst retaining the unaltered original video on the QNAP NAS – allowing for the best viewing experience on any device.

Access and share files through your mobile device

Carry terabytes of photos, music, videos and documents on the go! Easily manage, access, and share files stored on your NAS with the iOS and Android mobile apps including: Qfile, Qmusic and Qvideo while conveniently managing your download tasks with Qget.

■ Middle-end

Work Group / SOHO / Home

TS-431XeU

TS-x31K Series:

TS-431K, TS-231K, TS-131K

TS-x53Be Series:

TS-453Be, TS-253Be

TS-431KX, TS431X3

TS-x31P3 Series:

TS-431P3, TS-231P3

■ Entry-level SOHO / Home

TS-328, TS-251D, TS-230, TS-128A



QVR Pro Appliance

The QVR Pro Appliance is a SMB-grade; tower-based network surveillance server that supports high quality real-time video/audio monitoring, megapixel recording, and playback from multiple IP cameras to safeguard your precious property and assets.



PC-less network surveillance by full HD local display via HDMI connector

QNAP local display technology provides a straightforward way to reduce the total costs in your business environment. Even without a PC, QVR Pro Appliance can be configured and perform monitoring tasks to deliver lag-free live video monitoring in Full HD (1920x1080) resolution.

Fully unleash the potential of fisheye cameras

QVR Pro Appliance supports all of the standard fisheye cameras available on the market, and features Qdewarp technology that converts distorted parts of the original images into proportional ratios. QVR Pro Appliance ensures higher surveillance performance for greater security while providing deployment flexibility.

What's the difference between QVR Pro Appliance and other NAS-based surveillance systems?

QVR Pro Appliance, introduces the concept of "dedicated storage space" to ensure that the storage is fully reserved for the system performance will not be impacted by other applications on NAS. QVR Pro Appliance default bundles camera license, so it can be local installation without Internet, all essential applications already embedded in the Appliance machine.

Powerful camera management and support

QVR Pro Appliance supports thousands of camera models from over 150 brands and a variety of image formats, allowing you to quickly build different surveillance solutions tailored to your environments.

■ Entry level

VS-23xx series:
VS-2304, VS-2308



■ Middle-End

VS-43XX, VS-63XX series:
VS-4312, VS-4324, VS-6318, VS-6336

■ High-End

VS-83XX series:
VS-8324, VS-8348

ESx86dc Series

Model	ES2486dc	ES1686dc
		
CPU	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller	ES1686dc-2142IT-128G/ES1686dc-2142IT-96G: Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller ES1686dc-2123IT-64G: Intel® Xeon® D-2123IT 4-core 2.20 GHz processor (burst up to 3.0 GHz) per controller
Memory	48 GB DDR4 ECC (4 x 4 GB+4 x 8GB) per controller 64 GB DDR4 ECC (4 x 16 GB) per controller (Max 512 GB per controller)	32 GB DDR4 ECC(4 x 8GB) per controller 48 GB DDR4 ECC (4 x 4 GB+4 x 8GB) per controller 64 GB DDR4 ECC (4 x 16 GB) per controller (Max 512 GB per controller)
Drive Bay *	24 x 2.5-inch	16 x 3.5-inch
HDD Interface	SAS 12Gb/s, backward-compatible to SAS 6Gb/s	SAS 12Gb/s, backward-compatible to SAS 6Gb/s
SSD for C2F	1 per controller (64 GB)	1 per controller (64 GB)
HDD Hot Swappable	✓	✓
LAN Port	4 x 10GbE SFP+ for each controller	4 x 10GbE SFP+ for each controller
PCI-E Slot	Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)	Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)
Thunderbolt™	---	---
USB 3.1	---	---
USB 3.0 / USB 2.0	2 x USB 3.0 per controller	2 x USB 3.0 per controller
ODD Expansion Slot	---	---
HDMI	---	---
Dimensions (HxDxW) mm	88.3x483x545.1	132 × 483.05 × 630.62
Weight (kg)	27.41	25.83
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)
Power Supply	700W(x2), 90-264V	700W(x2), 90-264V
Max.# of IP Cameras (Supported QVR Pro)	---	---
Max. # of IP Cameras (Surveillance)	---	---
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.	

TDS-16489U R2

TDS-16489U-SE1-R2
(E5-2620 2.4GHz hexa-core CPU, 64GB DDR4 RDIMM)

TDS-16489U-SF2-R2
(E5-2620 2.4GHz hexa-core CPU, 128GB DDR4 RDIMM)

TDS-16489U-SE2-R2
(E5-2630 2.4GHz octa-core CPU, 128GB DDR4 RDIMM)

TDS-16489U-SF3-R2
(E5-2630 2.4GHz octa-core CPU, 256GB DDR4 RDIMM)



TDS-16489U-SE1-R2/TDS-16489U-SE2-R2: E5-2620 v4 8-core 2.1 GHz processor x2
TDS-16489U-SF2-R2/TDS-16489U-SF3-R2: E5-2630 v4 10-core 2.2 GHz processor x2

64 GB DDR4 (8 x 8 GB)
128 GB DDR4 (8 x 16 GB)
256 GB DDR4 (8 x 32GB)
(Max 1 TB)

16 x 3.5-inch, 4 x 2.5-inch

SAS 12Gb/s, backward-compatible to SAS/SATA 6Gb/s



4 x 10GbE SFP+

4
Slot 1: PCIe Gen 3 x16
Slot 2: PCIe Gen 3 x8
Slot 3: PCIe Gen 3 x8
Slot 4: PCIe Gen 3 x8

4/0

130.8 x 444 x 744

22.42



4 x 6 cm






770W(x2), 100-240V

Default: 8, Max.: 128 (optional license purchase)

Default 8, Max.: 80 (optional license purchase)






Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.

	TS-1886XU-RP	TES-x85U Series
Model	TS-1886XU-RP	TES-1885U
		
CPU	TS-1886XU-RP-D1602-4G: Intel® Xeon® D-1602 dual-core 2.50 GHz processor (burst up to 3.2 GHz) TS-1886XU-RP-D1622-8G: Intel® Xeon® D-1622 quad-core 2.60 GHz processor (burst up to 3.2 GHz)	TES-1885U-D1521-8GR: Intel® Xeon® Processor D-1521, 4-core 2.4 GHz TES-1885U-D1531-16GR: Intel® Xeon® Processor D-1531, 6-core 2.2 GHz
Memory	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 128 GB)	8 GB DDR4 ECC (1 x 8 GB) 16 GB DDR4 ECC (2 x 8 GB) (Max 128 GB)
Drive Bay*	12 x 3.5-inch 6 x 2.5-inch	Front: 12 x 3.5-inch Rear: 6 x 2.5-inch
HDD Interface	SATA 6Gb/s HDD / SSD	Front: SAS 12Gb/s & SATA 6Gb/s HDD / SSD Rear: SATA 6Gb/s SSD
M.2 SSD	---	---
HDD Hot Swappable	✓	✓
LAN Port	2 x 10GbE SFP+ 4 x 1GbE	2 x 10GbE SFP+ 4 x 1GbE
PCI-E Slot	4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or x4	4 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 2 x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x4 or PCIe Gen 3 x8
Thunderbolt™	---	---
USB 3.1	---	---
USB 3.0 / USB 2.0	2/0	2 / 0
ODD Expansion Slot	---	---
HDMI	---	---
Dimensions (HxWxD) mm	88.3 x 482 x 549.7	88 x 442.5 x 530.5
Weight (kg)	12.73	15.34
Fan	3 x 6 cm	4 x 6 cm
Power Supply	550W(x2), 100-240V	450W(x2), 90-264V
Max. # of IP Cameras (Supported QVR Pro)	Default: 8, Max.: 128 (optional license purchase)	Default 8, Max 128 (based on IP CAM setting)
Max. # of IP Cameras (Surveillance)	Default 8, Max.: 80 (optional license purchase)	Default 8, Max.: 80 (optional license purchase)
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.	

TVS-ECx80U-SAS-RP R2 Series				TS-2888X
TVS-EC2480U-SAS-RP R2	TVS-EC1680U-SAS-RP R2	TVS-EC1580MU-SAS-RP R2	TVS-EC1280U-SAS-RP R2	TS-2888X
				
Intel® Xeon® E3-1245 v3 3.4 GHz Quad-core Processor, E3-1246 v3 3.5 GHz Quad-core Processor or a compatible E3-1200 v3 family Processor				TS-2888X-W2195-512G / W2195-256G / W2195-128G / Intel® Xeon® W-2195 18-core 2.3 GHz processor TS-2888X-W2175-512G / W2175-256G / W2175-128G / W2145-512G / W2145-256G / W2145-128G Intel® Xeon® W-2175 14-core 2.5 GHz processor TS-2888X-W2133-64G / W2175-32G Intel® Xeon® W-2133 6-core 3.6 GHz processor
8 GB DDR3 ECC (2 x 4 GB) 16 GB DDR3 (2 x 8 GB) (Max 32 GB)				32 GB DDR4 ECC (4 x 8 GB) 64 GB DDR4 ECC (4 x 16 GB) 128 GB DDR4 ECC (4 x 32 GB) 256 GB DDR4 ECC (8 x 32 GB) 512 GB DDR4 ECC (8 x 64 GB) (Max 512 GB)
24 x 3.5-inch	16 x 3.5-inch	6 x 2.5-inch 9 x 3.5-inch	12 x 3.5-inch	8 x 3.5-inch 20 x 2.5-inch
SAS 12Gb/s & SATA 6Gb/s HDD / SSD				SATA 6Gb/s HDD / SSD U.2 PCIe Gen3 x4 NVMe SSD
---				---
✓				✓
2 x 10GbE SFP+ 4 x 1GbE				2 x 10GBASE-T 4 x 1GbE
2 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4				8 Slot 1: PCIe Gen 3 x8 or x4 (CPU) Slot 2: PCIe Gen 3 x4 (CPU) Slot 3: PCIe Gen 3 x8 or x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 5: PCIe Gen 3 x8 or x4 (CPU) Slot 6: PCIe Gen 3 x4 (CPU) Slot 7: PCIe Gen 3 x4 (PCH) Slot 8: PCIe Gen 3 x4 (PCH)
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4 / 4				6/4
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1				---
176.15 x 442.5 x 530.5	130 x 442.5 x 530.5	88 x 442.5 x 530.5		612 x 374 x 448
23.08	18.3	14.18		31.46
4 x 8 cm		4 x 6 cm		1 x 9 cm 9 x 12 cm
650W(x2), 90-264V		450W(x2), 90-264V		2000W, 200-240Vac
Default 8, Max 128 (based on IP CAM setting)				Default 8 / Max 128 (based on IP CAM setting)
Default: 8, Max.: 80 (optional license purchase)				Default 8, Max 128 (based on IP CAM setting)
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				

All specifications are subject to change without notice

* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

TS-x83XU Series					
Model	TS-2483XU-RP	TS-1683XU-RP	TS-1283XU-RP	TS-983XU/TS-983XU-RP	TS-883XU/TS-883XU-RP
					
CPU	Intel® Xeon® E-2136 6-core 3.3 GHz processor	Intel® Xeon® E-2124 4-core 3.3 GHz processor			
Memory	16 GB DDR4 (2 x 8 GB) (Max 64 GB)		8 GB DDR4 (2 x 4 GB) (Max 64 GB)		
Drive Bay *	24 x 3.5-inch	16 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch, 5 x 2.5-inch	8 x 3.5-inch
HDD Interface	SATA 6Gb/s HDD / SSD				
M.2 SSD	---				
HDD Hot Swappable	✓				
LAN Port	2 x 10GbE SFP+ 4 x 1GbE		2 x 10GbE SFP+ 2 x 1GbE		2 x 10GbE SFP+ 4 x 1GbE
PCI-E Slot	5 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x4 (CPU) Slot 3: PCIe Gen 2 x4 (PCH) Slot 4: PCIe Gen 3 x8 (CPU) Slot 5: PCIe Gen 2 x4 (PCH)	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU)	1 Slot 1: PCIe Gen 3 x16		4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU)
Thunderbolt™	---				
USB 3.1	2 x Type-C, 4 x Type-A				
USB 3.0 / USB 2.0	---				
ODD Expansion Slot	---				
HDMI	---				
Dimensions (HxWxD) mm	176.15 x 481.04 x 672.02	130 x 481 x 573.5	88.3 x 482 x 562	43.3 x 482.6 x 484.15/43.3 x 482.6 x 507.54	88.3 x 482 x 562
Weight (kg)	20.67	13.76	11.75	7.48/8.63	10.39/10.99
Fan	4 x 9.2 cm		2 x 6 cm	3 x 4 cm	2 x 6 cm
Power Supply	800W(x2), 100-240V	500W(x2), 100-240V	300W(x2), 100-240V	250W / 300W(x2), 100-240V	350W / 300W(x2), 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)				
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)				
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				

TS-x77XU Series

TS-2477XU-RP	TS-1677XU-RP	TS-1277XU-RP
		
Intel® Xeon® E3-1245 v3 3.4 GHz Quad-core Processor, E3-1246 v3 3.5 GHz Quad-core Processor or a compatible E3-1200 v3 family Processor	TS-1677XU-RP-2700-16G: AMD Ryzen™ 7 2700 8-core/16-thread 3.2 GHz processor, Turbo Core 4.1 GHz TS-1677XU-RP-2600-8G: AMD Ryzen™ 5 2600 6-core/12-thread 3.4 GHz processor, Turbo Core 3.9 GHz TS-1677XU-RP-1200-4G: AMD Ryzen™ 3 1200 4-core/4-thread 3.1 GHz processor, Turbo Core 3.4 GHz	TS-1277XU-RP / TS-877XU-RP-2600-8G: AMD Ryzen™ 5 2600 6-core/12-thread 3.4 GHz processor, Turbo Core 3.9 GHz TS-1277XU-RP / TS-877XU-RP-1200-4G: AMD Ryzen™ 3 1200 4-core/4-thread 3.1 GHz processor, Turbo Core 3.4 GHz
8 GB DDR4 (1 x 8 GB) 16 GB DDR4 (2 x 8 GB) (Max 64 GB)	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) 16 GB DDR4 (2 x 8 GB) (Max 64 GB)	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 64GB)
24 x 3.5-inch	16 x 3.5-inch	12 x 3.5-inch
SATA 6Gb/s HDD / SSD		

✓		
2 x 10GbE SFP+ 2 x 1GbE		
Slot 1: ⁴ PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x8 or PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x4	Slot 1: ⁴ PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or PCIe Gen 3 x4	

1 x Type-C, 1 x Type-A		
4 / 0		

176.15 × 481.04 × 672.02	130 x 481 x 573.5	88.3 x 482 x 562
22.66	15.26	13.73
4 x 9.2 cm	4 x 9.2 cm	2 x 7 cm
800W(x2), 100-240V	500W(x2), 100-240V	300W (x2), 100-240V
Default 8, Max 128 (based on IP CAM setting)		
Default: 8, Max.: 80 (optional license purchase)		
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.		

All specifications are subject to change without notice

* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

TS-x77XU Series

Model	TS-977XU-RP	TS-977XU	TS-877XU-RP	TS-877XU
				
CPU	TS-977XU-RP-2600-8G AMD Ryzen™ 5 2600 6-core / 12 thread 3.4 GHz processor TS-977XU-RP-1200-4G AMD Ryzen™ 3 1200 4-core / 4 thread 3.1 GHz processor	TS-977XU-1200-4G AMD Ryzen™ 3 1200 quad-core / 4 thread 3.1 GHz processor	TS-1277XU-RP / TS-877XU-RP-2600-8G: AMD Ryzen™ 5 2600 6-core/ 12-thread 3.4 GHz processor, Turbo Core 3.9 GHz TS-1277XU-RP / TS-877XU-RP-1200-4G: AMD Ryzen™ 3 1200 4-core/ 4-thread 3.1 GHz processor, Turbo Core 3.4 GHz	TS-877XU-1200-4G: AMD Ryzen™ 3 1200 4-core/ 4-thread 3.1 GHz processor Turbo Core 3.4 GHz
Memory	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 64 GB)	4 GB DDR4 (1 x 4 GB) (Max 64 GB)	8 GB DDR4 (2 x 4 GB) 4 GB DDR4 (1 x 4 GB) (Max 64GB)	4 GB DDR4 (1 x 4 GB) (Max 64GB)
Drive Bay *	4 x 3.5-inch, 5 x 2.5-inch		8 x 3.5-inch	
HDD Interface	SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD	
M.2 SSD	---		---	
HDD Hot Swappable	✓			
LAN Port	2 x 10GbE SFP+ 2 x 1GbE		2 x 10GbE SFP+ 2 x 1GbE	
PCI-E Slot	1 Slot 1: PCIe Gen 3 x16		4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or PCIe Gen 3 x4	
Thunderbolt™	---			
USB 3.1	1 x Type-A		1 x Type-C, 1 x Type-A	
USB 3.0 / USB 2.0	4 / 0			
ODD Expansion Slot	---			
HDMI	---		---	
Dimensions (HxWxD) mm	43.3 x 482.6 x 505.54		88.3 x 482 x 562	
Weight (kg)	8.62	7.44	13.31	11.98
Fan	3 x 4 cm		2 x 7cm	
Power Supply	300W(x2), 100-240V	250W, 100-240V	300W (x2), 100-240V	350W, 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)			
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)			
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.			

TVS-x72XU Series

TVS-2472XU-RP	TVS-1672XU-RP	TVS-1272XU-RP	TVS-972XU/ TVS-972XU-RP	TVS-872XU/ TVS-872XU-RP
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Intel® Core™ i5-8500 6-core 3.0 GHz processor		Intel® Core™ i3-8100 4-core 3.6 GHz processor		
8 GB DDR4 (2 x 4 GB) (Max 64 GB)		4 GB DDR4 (1 x 4 GB) (Max 64 GB)		
24 x 3.5-inch	16 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch, 5 x 2.5-inch	8 x 3.5-inch
SATA 6Gb/s HDD / SSD				

✓				
2 x 10GbE SFP+ 4 x 1GbE			2 x 10GbE SFP+ 2 x 1GbE	2 x 10GbE SFP+ 4 x 1GbE
5 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x4 (CPU) Slot 3: PCIe Gen 2 x4 (PCH) Slot 4: PCIe Gen 3 x8 (CPU) Slot 5: PCIe Gen 2 x4 (PCH)	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU)		1 Slot 1: PCIe Gen 3 x16	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU)

2 x Type-C, 4 x Type-A			2 x Type-C, 2 x Type-A	2 x Type-C, 4 x Type-A
---			2/0	---

1				
176.15 x 481.04 x 672.02	130 x 481 x 573.5	88.3 x 482 x 562	43.3 x 482.6 x 484.15 / 43.3 x 482.6 x 507.54	88.3 x 482 x 562
20.67	15.35	12.25	7.48 / 8.63	10.93/11.89
4 x 9.2 cm		2 x 6 cm	3 x 4 cm	2 x 6 cm
800W (x2), 100-240V	500W (x2), 100-240V	300W (x2), 100-240V	250W / 300W(x2), 100-240V	350W / 300W(x2), 100-240V
Default 8, Max 128 (based on IP CAM setting)				
Default: 8, Max.: 80 (optional license purchase)				
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				

All specifications are subject to change without notice





* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

	TS-x73U Series						TS-x63XU Series		
Model	TS-1673U-RP	TS-1673U	TS-1273U-RP	TS-1273U	TS-873U-RP	TS-873U	TS-1263XU TS-1263XU-RP	TS-863XU TS-863XU-RP	TS-463XU TS-463XU-RP
									
CPU	AMD R-Series RX-421ND quad-core 2.1 GHz processor, turbo core up to 3.4 GHz						AMD G-Series GX-420MC quad-core 2.0 GHz		
Memory	8 GB DDR4 (2 x 4GB) 16 GB DDR4 (2 x 8GB) 64 GB DDR4 (4 x 16GB) (Max 64 GB)						4 GB DDR3L (1 x 4 GB) (Max 16GB)		
Drive Bay *	16 x 3.5-inch		12 x 3.5-inch		8 x 3.5-inch		12 x 3.5-inch	8 x 3.5-inch	4 x 3.5-inch
HDD Interface	SATA 6Gb/s HDD / SSD						SATA 6Gb/s HDD / SSD		
M.2 SSD	2 x M.2 2280 SATA 6Gb/s SSD						---		
HDD Hot Swappable	✓						✓		
LAN Port	2 x 10GbE SFP+ 4 x 1GbE						1 x 10GBASE-T 4 x 1GbE		
PCI-E Slot	1 (pre-installed with a dual-port 10GbE SFP+ LAN card) Slot 1: PCIe Gen 3 x4						1 Slot 1: PCIe Gen 2 x4		
Thunderbolt™	---						---		
USB 3.1	---						---		
USB 3.0 / USB 2.0	2 / 4						2 / 2		2 / 3
ODD Expansion Slot	---						---		
HDMI	---						---		
Dimensions (HxWxD) mm	130 x 481 x 536		89 x 482 x 534				89 x 482 x 534		44 x 439 x 499
Weight (kg)	15.01	14.25	11.98	10.75	11.3	9.85	13.1/11.84	12.64/11	7.63
Fan	4 x 9.2 cm		2 x 7 cm				2 x 7 cm		2 x 4 cm
Power Supply	500W(x2), 100-240V	350W, 100- 240V	300W(x2), 100-240V	350W, 100- 240V	250W(x2), 100 -240V	250W, 100 - 240V	300W(x2)/250W, 110-240V	250W(x2), 110-240V	
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)						Default 8, Max 128 (based on IP CAM setting)		
Max. # of IP Cameras (Surveillance)	Default: 4, Max.: 72 (optional license purchase)						Default: 4, Max.: 40 (optional license purchase)		
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.								

TS-x32XU Series			QTS hero NAS Series		
TS-1232XU TS-1232XU-RP	TS-832XU TS-832XU-RP	TS-432XU TS-432XU-RP	TS-h1283XU-RP	TS-h1277XU-RP	TS-h977XU-RP
					
AnnapurnaLabs Alpine AL-324 ARMv8 Cortex-A57 quad-core 1.7GHz			Intel® Xeon® E-2236 6-core/12-thread 3.4 GHz processor (burst up to 4.8 GHz)	AMD Ryzen™ 7 3700X 8-core/16-thread 3.4 GHz processor, Turbo Core 4.4 GHz	AMD Ryzen™ 7 3700X 8-core/16-thread 3.4 GHz processor, Turbo Core 4.4 GHz
4 GB DDR4 (1 x 4GB) (Max 16 GB)		2 GB DDR4 (1 x 2GB) (Max 16 GB)	32 GB DDR4 ECC (2 x 16 GB) 128 GB DDR4 ECC (4 x 32 GB) (Max 128 GB)	32 GB DDR4 (2 x 16 GB) 128 GB DDR4 (4 x 32 GB) (Max 128 GB)	32 GB DDR4 (2 x 16 GB) (Max 128 GB)
12 x 3.5-inch	8 x 3.5-inch	4 x 3.5-inch	12 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch, 5 x 2.5-inch
SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD		
---			---		
✓			✓		
2 x 10GbE SFP+ 2 x 1GbE			2 x 10GbE SFP+ 2 x 10GBASE-T 4 x 1GbE	2 x 10GbE SFP+ 2 x 10GBASE-T 2 x 1GbE	2 x 10GbE SFP+ 2 x 10GBASE-T 2 x 1GbE
1 Slot 1: PCIe Gen 2 x2			4 Slot 1: PCIe Gen 2 x4 Slot 2: PCIe Gen 3 x8 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x4	4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or PCIe Gen 3 x4	1 Slot 1: PCIe Gen 3 x16
---			---		
---			2 x Type-C, 4 x Type-A	1 x Type-C, 1 x Type-A	1 x Type-A
4 / 0			0/0	4/0	4/0
---			---		
---			---		
89 x 482 x 534		44 x 439 x 499	88.3 x 482 x 562	88.3 x 482 x 562	43.3 x 482.6 x 505.54
13	11.01	9.12	11.75	13.73	8.62
2 x 7 cm		2 x 4 cm	2 x 60mm	2 x 70mm	3 x 40mm
250W(x2), 100 - 240 V			300W(x2), 100-240V	300W(x2), 100-240V	300W(x2), 100-240V
Default 8, Max 128 (based on IP CAM setting)			Default: 8, Max.: 128 (optional license purchase)		
Default: 2, Max.: 24 (optional license purchase)			---		
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					

All specifications are subject to change without notice

* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.




	TVS-1582TU	TS-451DeU	TS-x53DU Series	
Model	TVS-1582TU	TS-451DeU	TS-453DU	TS-453DU-RP
				
CPU	TVS-1582TU-i5-16G: Intel® Core™ i5-7500 quad-core 3.4 GHz processor TVS-1582TU-i7-32G: Intel® Core™ i7-7700 quad-core 3.6 GHz processor	Intel® Celeron® J4025 dual-core 2.0 GHz processor (burst up to 2.9 GHz)	Intel® Celeron® J4125 quad-core 2.0 GHz processor (burst up to 2.7 GHz)	Intel® Celeron® J4125 quad-core 2.0 GHz processor (burst up to 2.7 GHz)
Memory	16 GB DDR4 (2 x 8 GB) 32 GB DDR4 (4 x 8 GB) (Max 64 GB)	2 GB DDR4 (1 x 2 GB) (Max 8 GB)	4 GB DDR4 (1 x 4 GB) (Max 8 GB)	4 GB DDR4 (1 x 4 GB) (Max 8 GB)
Drive Bay *	6 x 2.5-inch, 9 x 3.5-inch	4 x 3.5-inch	4 x 3.5-inch	4 x 3.5-inch
HDD Interface	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	
M.2 SSD	---	2 x M.2 2280 SATA 6Gb/s	2 x M.2 2280 SATA 6Gb/s	
HDD Hot Swappable	✓	✓	✓	
LAN Port	2 x 10GbE SFP+ 4 x 1GbE	2 x 2.5GbE	2 x 2.5GbE Optional: 5GbE/10GbE network expansion card	
PCI-E Slot	3 (pre-installed with two Thunderbolt™ 3 cards and a 10GbE network card) Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 Slot 3: PCIe Gen 3 x4	---	1 Slot 1: PCIe Gen 2 x2	
Thunderbolt™	4 x Thunderbolt™ 3	---	---	
USB 3.1	---	---	---	
USB 3.0 / USB 2.0	4 / 4	2/2	2/2	
ODD Expansion Slot	---	---	---	
HDMI	1	---	1	
Dimensions (HxWxD) mm	88 x 442.5 x 530.5	44 x 439 x 291	44 x 439 x 499	44 x 439 x 499
Weight (kg)	13	4.14	7.46	9.27
Fan	4 x 6 cm	3 x 4 cm	2 x 4 cm	2 x 4 cm
Power Supply	2x450W,100-240V	100W, 100-240V	250W, 100-240V	250W(x2), 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)	Default: 8, Max.: 128 (optional license purchase)	Default: 8, Max.: 128 (optional license purchase)	
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)	Default: 4, Max.: 40 (optional license purchase)	Default: 4, Max.: 40 (optional license purchase)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.			

		TS-431XeU	TVS-1282T3	TVS-882ST3
TS-853DU-RP	TS-1253DU-RP	TS-431XeU	TVS-1282T3	TVS-882ST3
				
Intel® Celeron® J4125 quad-core 2.0 GHz processor (burst up to 2.7 GHz)	Intel® Celeron® J4125 quad-core 2.0 GHz processor (burst up to 2.7 GHz)	AMD Ryzen™ 7 3700X 8-core/16-thread 3.4 GHz processor, Turbo Core 4.4 GHz	Intel® Core™ i5-7500 quad-core 3.4 GHz processor	Intel® Core™ i7-7700 quad-core 3.6 GHz processor
4 GB DDR4 (1 x 4 GB) (Max 8 GB)	4 GB DDR4 (1 x 4 GB) (Max 8 GB)	2 GB DDR3 (1 x 2 GB) 8 GB DDR3 (1 x 8 GB) (Max 8 GB)	16 GB DDR4 (2 x 8 GB) 32 GB DDR4 (4 x 8 GB) 64 GB DDR4 (4 x 16 GB) (Max 64 GB)	8 GB DDR4 (2 x 4 GB) 16 GB DDR4 (2 x 8 GB) (Max 32 GB)
8 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch	4 x 2.5-inch, 8 x 3.5-inch	8 x 2.5-inch
SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD /SSD
2 x M.2 2280 SATA 6Gb/s		---	2 x M.2 2242 / 2260 / 2280 / 22110 SATA 6Gb/s	---
✓		✓	✓	✓
2 x 2.5GbE Optional: 5GbE/10GbE network expansion card		1 x 10GbE SFP+ 2 x 1GbE	2 x 10GbE-T 4 x 1GbE	2 x 10GbE-T 2 x 1GbE
1 Slot 1: PCIe Gen 2 x2		---	3 (pre-installed with two Thunderbolt™ 3 cards and a 10GbE card) Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4	2 (pre-installed with a Thunderbolt™ 3 card and a 10GbE card) Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4
---		---	4 x Thunderbolt™ 3	2 x Thunderbolt™ 3
---		---	---	1 x Type-C, 1 x Type-A
2/2		4 / 0	5 / 0	2/0
---		---	---	---
1		---	3	1
88.7 x 482.2 x 423.8	88.7 x 482.2 x 423.8	44 x 439 x 291	234.6 x 369.9 x 319.8	177 x 180 x 235
11.25	11.64	4.15	11.55	3.97
2 x 7 cm	2 x 7 cm	3 x 4 cm	3 x 8 cm 2 x 9 cm	1 x 12 cm
250W(x2), 100-240V	300W(x2), 100-240V	100W, 100-240V	250W, 100V-240V	250W, 100V-240V
Default: 8, Max.: 128 (optional license purchase)		---	Default 8, Max 128 (based on IP CAM setting)	Default 8, Max 128 (based on IP CAM setting)
Default: 4, Max.: 40 (optional license purchase)		Default: 2, Max.: 30 (optional license purchase)	Default: 8, Max.: 80 (optional license purchase)	Default: 4, Max.: 72 (optional license purchase)
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				







All specifications are subject to change without notice

* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

	TVS-x72XT Series			TVS-882BRT3	
Model	TVS-872XT	TVS-672XT	TVS-472XT	TVS-882BRT3	
					
CPU	Intel® Core™ i5-8400T 6-core 1.7 GHz Processor, Max turbo to 3.3 GHz	Intel® Core™ i3-8100T 4-core 3.1 GHz Processor	Intel® Pentium G5400T 2-core 3.1 GHz Processor	Intel® Core™ i5-7500 quad-core 3.4 GHz (up to 3.8 GHz)	Intel® Core™ i7-7700 quad-core 3.6 GHz (up to 4.2 GHz)
Memory	16 GB DDR4 (2 x 8 GB) (Max 32 GB)	8 GB DDR4 (2 x 4 GB) (Max 32 GB)	4 GB DDR4 (2 x 2 GB) (Max 32 GB)	16 GB DDR4 (2 x 8 GB) (Max 64 GB)	32 GB DDR4 (4 x 8 GB) (Max 64 GB)
Drive Bay *	8 x 3.5-inch	6 x 3.5-inch	4 x 3.5-inch	8 x 3.5-inch	
HDD Interface	SATA 6Gb/s HDD/SSD			SATA 6Gb/s HDD / SSD	
M.2 SSD	2 x M.2 2280 PCIe Gen3 x2			2 x M.2 2242 / 2260 / 2280 / 22110 SATA 6Gb/s	
HDD Hot Swappable	✓			✓	
LAN Port	1 x 10GBASE-T 2 x 1GbE			4 x 1GbE Optional: 5GbE/10GbE network expansion card	
PCI-E Slot	2 Slot 1: PCIe Gen 3 x16 Slot 2: PCIe Gen 3 x4			3 (pre-installed with two dual port Thunderbolt™ 3 cards) Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4	
Thunderbolt™	2 x Thunderbolt™ 3			4 x Thunderbolt™ 3	
USB 3.1	2 x Type-C, 2 x Type-A			---	
USB 3.0 / USB 2.0	1/0			5 / 0	
ODD Expansion Slot	---			1 x 5.25" disc burner or 2 x Slim SATA disc burners * ODD skus come with preloaded Blu-ray ODD	
HDMI	1			3	
Dimensions (HxWxD) mm	188.2 x 329.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 199.3 x 279.6	234.6 x 369.9 x 319.8	
Weight (kg)	7.06	6.553	5.4	11.23	
Fan	1 x 12 cm 2 x 6 cm			3 x 8 cm 2 x 9 cm	
Power Supply	250W, 100-240V			250W, 100-240V	
Max. # of IP Cameras (Supported QVR Pro)	Default: 8, Max.: 128 (optional license purchase)			Default 8, Max 128 (based on IP CAM setting)	
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)			Default: 8, Max.: 80 (optional license purchase)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				

TS-453BT3	TS-1685	TVS-x82 Series		
TS-453BT3	TS-1685	TVS-1282	TVS-882	TVS-682
				
Intel® Celeron® J3455 quad-core 1.5 GHz (up to 2.3 GHz)	Intel® Xeon® Processor D-1521, 4-core 2.4 GHz Intel® Xeon® Processor D-1531, 6-core 2.2 GHz	TVS-1282-i3-8G: Intel® Core™ i3 7100 dual-core 3.9 GHz TVS-1282-i5-16G / TVS-1282-i5-16G-450W: Intel® Core™ i5-7500 quad-core 3.4 GHz TVS-1282-i7-32G / TVS-1282-i7-64G / TVS-1282-i7-32G-450W / TVS-1282-i7-64G-450W: Intel® Core™ i7-7700 quad-core 3.6 GHz	TVS-882-i3-8G: Intel® Core™ i3 7100 dual-core 3.9 GHz TVS-882-i5-16G / TVS-882-i5-16G-450W: Intel® Core™ i5-7500 quad-core 3.4 GHz	TVS-682-i3-8G: Intel® Core™ i3 7100 dual-core 3.9 GHz
8 GB DDR3L (2 x 4GB) (Max 8GB)	8 GB DDR4 (1 x 8GB) 16 GB DDR4 (2 x 8GB) 32 GB DDR4 (2 x 16 GB) (Max 64/128 GB)	8 GB DDR4 (2 x 4 GB) 16 GB DDR4 (2 x 8 GB) 32 GB DDR4 (4 x 8 GB) 64 GB DDR4 (4 x 16 GB) (Max 64 GB)	8 GB DDR4 (2 x 4 GB) 16 GB DDR4 (2 x 8 GB) (Max 64 GB)	8 GB DDR4 (2 x 4 GB) (Max 64 GB)
4 x 3.5-inch	12 x 3.5-inch, 4 x 2.5-inch	8 x 3.5-inch, 4 x 2.5-inch	6 x 3.5-inch, 2 x 2.5-inch	4 x 3.5-inch, 2 x 2.5-inch
SATA 6Gb/s HDDs/SSDs	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD		
2 x M.2 2280 SATA 6Gb/s	6 x M.2 2242 / 2260 / 2280 / 22110 SATA 6Gb/s	2 x M.2 22110 / 2280 / 2260 / 2242 SATA 6Gb/s		
✓	✓	✓		
1 x 10GBASE-T 2 x 1GbE	2 x 10GBASE-T 4 x 1GbE	4 x 1GbE Optional: 5GbE/10GbE network expansion card		
1 (pre-installed with a QM2 expansion card) Slot 1: PCIe Gen2 x2	³ Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 2 x4 Slot 3: PCIe Gen 3 x8	³ Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4	² Slot 1: PCIe Gen 3 x16 Slot 2: PCIe Gen 3 x4	
2 x Thunderbolt™ 3	---	---		
---	---	---		
5 / 0	3/0	5 / 0		
---	---	---		
2	---	3		
168 x 170 x 226 mm	303.84 x 369.89 x 319.8	234.6 x 369.9 x 319.8	231.9 x 292.8 x 319.8	231.9 x 224.9 x 319.8
2.51	13.39	11.34	8.85	7.7
1 x 12 cm	3 x 9.2 cm 2 x 9 cm	3 x 8 cm 1 x 9 cm	3 x 8 cm 1 x 9 cm	3 x 8 cm 1 x 9 cm
AC adapter, 120W, 100 - 240V	250W, 100-240V / 550W, 100-240V	250W, 100 - 240V / 450W, 100 - 240V	250W, 100 - 240V / 450W, 100 - 240V	250W, 100 - 240V
Default 8, Max 128 (based on IP CAM setting)	Default 8, Max 128 (based on IP CAM setting)	Default 8, Max 128 (based on IP CAM setting)		
Default: 4, Max: 40 (optional license purchase)	Default: 8, Max: 80 (optional license purchase)	Default: 8, Max: 80 (optional license purchase)		
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				


	TS-x77 Series			TVS-x73e Series		
Model	TS-1277	TS-877	TS-677	TVS-873e	TVS-673e	TVS-473e
						
CPU	TS-1277-1700-16G/64G: AMD Ryzen™ 7 1700 8-core/16-thread 3.0 GHz processor, Turbo Core 3.7 GHz TS-1277-1600-8G: AMD Ryzen™ 5 1600 6-core/12-thread 3.2 GHz processor, Turbo Core 3.6 GHz	TS-877-1700-16G: AMD Ryzen™ 7 1700 8-core/16-thread 3.0 GHz processor, Turbo Core 3.7 GHz TS-877-1600-8G: AMD Ryzen™ 5 1600 6-core/12-thread 3.2 GHz processor, Turbo Core 3.6 GHz	TS-677-1600-8G: AMD Ryzen™ 5 1600 6-core/12-thread 3.2 GHz processor, Turbo Core 3.6 GHz	AMD R-Series RX-421BD quad-core 2.1 GHz (up to 3.4 GHz)		
Memory	8 GB DDR4 (2 x 4 GB) 16 GB DDR4 (2 x 8 GB) 64 GB DDR4 (4 x 16 GB) (Max 64 GB)			8 GB DDR4 (2 x 4 GB) 4 GB DDR4 (2 x 2 GB) (Max 64 GB)		
Drive Bay *	8 x 3.5-inch, 4 x 2.5-inch	6 x 3.5-inch, 2 x 2.5-inch	4 x 3.5-inch, 2 x 2.5-inch	8 x 3.5-inch	6 x 3.5-inch	4 x 3.5-inch
HDD Interface	SATA 6 Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD		
M.2 SSD	2 x M.2 2242 / 2260 / 2280 / 22110 SATA 6 Gb/s			2 x M.2 2280 / 2260 SATA 6Gb/s		
HDD Hot Swappable	✓			✓		
LAN Port	4 x 1GbE Optional: 10GbE network expansion card			4 x 1GbE Optional: 5GbE/10GbE network expansion card		
PCI-E Slot	3 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 2 x4			2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4		
Thunderbolt™	---			---		
USB 3.1	1 x Type-A, 1 x Type-C			---		
USB 3.0 / USB 2.0	6 / 0			4 / 0		
ODD Expansion Slot	---			---		
HDMI	---			2		
Dimensions (HxWxD) mm	234.6 x 369.9 x 319.8	231.9 x 292.8 x 319.8	231.9 x 224.9 x 319.8	188.2 x 329.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 199.3 x 279.6
Weight (kg)	11.27	8.86	7.7	6.56	5.63	4.9
Fan	3 x 8 cm 2 x 9 cm	2 x 8 cm 2 x 9 cm	1 x 8 cm 2 x 9 cm	2 x 12 cm 1 x 6 cm	2 x 9 cm 1 x 6 cm	1 x 12 cm 1 x 6 cm
Power Supply	550W, 100-240V	450W, 100-240V	250W, 100-240V	250W, 100-240V		
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)			Default 8, Max 128 (based on IP CAM setting)		
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)			Default: 4, Max.: 72 (optional license purchase)		
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					

TS-x73 Series			TVS-x72N Series		TS-x53Be Series		TS-1635AX
TS-873	TS-673	TS-473	TVS-672N	TVS-872N	TS-453Be	TS-253Be	TS-1635AX
							
AMD R-Series RX-421ND quad-core 2.1 GHz processor, Turbo Core up to 3.4 GHz			Intel® Core™ i3-8100T 4-core 3.1 GHz Processor	Intel® Core™ i3-8100T 4-core 3.1 GHz Processor	Intel® Celeron® J3455 quad-core 1.5 GHz (up to 2.3 GHz)		Marvell® ARMADA® 8040 ARMv8 Cortex-A72 quad-core 1.6 GHz
8 GB DDR4 (2 x 4 GB) 4 GB DDR4 (2 x 2 GB) (Max 64GB)			4 GB DDR4 (2 x 2 GB) (Max 32 GB)	8 GB DDR4 (2 x 4 GB) (Max 32 GB)	2 GB DDR3L (1 x 2 GB) 4 GB DDR3L (1 x 4 GB) (Max 8 GB)		8 GB DDR4 (1 x 8 GB) 4 GB DDR4 (1 x 4 GB) (Max 16GB)
8 x 3.5-inch	6 x 3.5-inch	4 x 3.5-inch	6 x 3.5-inch	8 x 3.5-inch	4 x 3.5-inch	2 x 3.5-inch	12 x 3.5-inch, 4 x 2.5-inch
SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD
2 x M.2 2260/2280 SATA 6Gb/s			2 x M.2 2280 PCIe Gen3 x 2		---		2 x M.2 2280 SATA 6Gb/s
✓			✓		✓		✓
4 x 1GbE Optional: 5GbE/10GbE network expansion card			1 x 5GbE 2 x 1GbE Optional: 10GbE network expansion card		2 x 1GbE Optional: 5GbE/10GbE network expansion card		2 x 10GbE SFP+ 2 x 1GbE
Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4			Slot 1: PCIe Gen 3 x16 Slot 2: PCIe Gen 3 x4		Slot 1: PCIe Gen 2 x2		Slot 1: PCIe Gen 3 x2 Slot 2: PCIe Gen 3 x1
---			---		---		---
---			2 x Type-C, 2 x Type-A		---		---
4/0			1/0		5/0		3/0
---			---		---		---
---			1		2		---
188.2 x 329.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 329.3 x 279.6	168 x 170 x 226	168 x 105 x 226	303.84 x 369.89 x 319.8
6.56	5.57	4.84	6.553	7.06	2.33	1.66	12.06
2 x 12 cm 1 x 6 cm	2 x 9 cm 1 x 6 cm	1 x 12 cm 1 x 6 cm	2 x 9.2 cm 2 x 6 cm	2 x 12 cm 2 x 6 cm	1 x 12 cm	1 x 7 cm	3 x 9.2 cm 1 x 6 cm
250W, 100 - 240V			250W, 100-240V		AC adapter, 90W, 100 - 240V	AC adapter, 60W, 100 - 240V	250W, 100-240V
Default 8, Max 128 (based on IP CAM setting)			Default: 8, Max.: 128 (optional license purchase)		Default 8, Max 128 (based on IP CAM setting)		Default 8, Max 16 (based on IP CAM setting)
Default: 4, Max.: 72 (optional license purchase)			Default: 8, Max.: 80 (optional license purchase)		Default: 4, Max.: 40 (optional license purchase)		Default: 8, Max.: 40 (optional license purchase)
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.							

All specifications are subject to change without notice





* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

	TS-932X	TS-832X	HS-453DX	TBS-453DX	TS-351
Model					
CPU	AnnapurnaLabs Alpine AL-324 Quad-core 1.7GHz	AnnapurnaLabs, Alpine AL-324 Quad-core 1.7GHz	Intel® Celeron® J4115 quad-core 1.8 GHz processor (burst up to 2.5GHz)	Intel® Celeron® J4115 quad-core 1.8 GHz processor (burst up to 2.5GHz)	Intel® Celeron® J1800 dual core 2.41 GHz processor
Memory	8 GB DDR4 (1 x 8 GB) 2 GB DDR4 (1 x 2 GB) (Max 16GB)	8GB DDR4 (1 x 8 GB) 2GB DDR4 (1 x 2 GB) (Max 16GB)	4 GB DDR4 (2 x 2 GB) 8 GB DDR4 (2 x 4 GB) (Max 8GB)	4 GB DDR4 (2 x 2 GB) 8 GB DDR4 (2 x 4 GB) (Max 8 GB)	4 GB DDR3 (1 x 4 GB) 2 GB DDR3 (1 x 2 GB) (Max 8 GB)
Drive Bay *	5 x 3.5-inch, 4 x 2.5-inch	8 x 3.5-inch	2 x 3.5-inch	---	3 x 3.5-inch
HDD Interface	SATA 6 Gb/s HDD / SSD	SATA 6 Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	---	SATA 6 Gb/s HDD / SSD
M.2 SSD	---	---	2 x M.2 2280 SATA 6Gb/s	4 x M.2 2280 SATA 6Gb/s	2 x M.2 2280 NVMe 500 MB/s
HDD Hot Swappable	✓	✓	✓	---	✓
LAN Port	2 x 10GbE SFP+ 2 x 1GbE	2 x 10GbE SFP+ 2 x 1GbE	1 x 10GBASE-T 1 x 1GbE	1 x 10GBASE-T 1 x 1GbE	1 x 1GbE
PCI-E Slot	---	Slot 1: PCIe Gen 2 x1 Slot 2: PCIe Gen 2 x2	---	---	---
Thunderbolt™	---	---	---	---	---
USB 3.1	---	---	---	---	---
USB 3.0 / USB 2.0	3/0	3/0	3/2	3/4	1/2
ODD Expansion Slot	---	---	---	---	---
HDMI	---	---	2	1	1
Dimensions (HxWxD) mm	182 x 225 x 224	188.2 x 329.3 x 279.6	43.8 x 404 x 220	30 x 230 x 165	142 x 150 x 260.1
Weight (kg)	3.53	6.52	2.4	0.8	1.64
Fan	1 x 14cm	2 x 12 cm 1 x 6 cm	---	1 x Compact internal fan	1 x 9 cm
Power Supply	AC adapter, 120W, 100 - 240V	250W, 100-240V	AC adapter, 90W, 100-240V	AC adapter, 60W, 100-240V	AC adapter, 60W, 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8 / Max 16 (based on IP CAM setting)	Default 8 / Max 16 (based on IP CAM setting)	Default 8 / Max 128 (based on IP CAM setting)	Default 8 / Max 128 (based on IP CAM setting)	Default 8 / Max 128 (based on IP CAM setting)
Max. # of IP Cameras (Surveillance)	Default: 2, Max.: 24 (optional license purchase)	Default: 2, Max.: 24 (optional license purchase)	Default: 4, Max.: 40 (optional license purchase)	Default: 4, Max.: 40 (optional license purchase)	Default: 2, Max.: 32 (optional license purchase)
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				



TS-431KX		TS-431X3		TS-251D		TS-253D		TS-453D		TS-653D	
TS-431KX		TS-431X3		TS-251D		TS-253D		TS-453D		TS-653D	
											
AnnapurnaLabs Alpine AL-214 ARM® quad-core 1.7GHz processor		AnnapurnaLabs Alpine AL-314 ARM® quad-core 1.7GHz processor		Intel® Celeron® J4025 dual-core 2.0 GHz processor (burst up to 2.9 GHz)		Intel® Celeron® J4125 dual-core 2.0 GHz processor (burst up to 2.7 GHz)		Intel® Celeron® J4125 dual-core 2.0 GHz processor (burst up to 2.7 GHz)		Intel® Celeron® J4125 dual-core 2.0 GHz processor (burst up to 2.7 GHz)	
2 GB DDR3L (1 x 2 GB) (Max 8 GB)		2 GB DDR3L (1 x 2 GB) (Max 8 GB)		2 GB DDR4 (1 x 2 GB) 4 GB DDR4 (1 x 4 GB) (Max 8 GB)		4 GB DDR4 (1 x 4 GB) (Max 8 GB)		4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 8 GB)		4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 8 GB)	
4 x 3.5-inch		4 x 3.5-inch		2 x 3.5-inch		2 x 3.5-inch		4 x 3.5-inch		6 x 3.5-inch	
SATA 6 Gb/s HDD / SSD		SATA 6 Gb/s HDD / SSD		SATA 6 Gb/s HDD / SSD		SATA 6 Gb/s HDD / SSD					
---		---		---		---					
✓		✓		✓		✓					
1 x 10GbE SFP+ 2 x 1GbE		1 x 10GbE SFP+ 2 x 2.5GbE		1 x 1GbE Optional: 5GbE/10GbE network expansion card		2 x 2.5GbE Optional: 5GbE/10GbE network expansion card					
---		---		1 Slot 1: PCIe Gen 2 x4		1 Slot 1: PCIe Gen 2 x4					
---		---		---		---					
---		---		---		---					
3/0		3/0		2/3		2/3					
---		---		---		---					
---		---		1		1					
161 x 160 x 219		161 x 160 x 219		168 x 105 x 226		168 x 105 x 226		168 x 170 x 226		168 x 235 x 226	
2.03		2.03		1.48		1.67		2.37		3.02	
1 x 12cm		1 x 12cm		1 x 7 cm		1 x 7 cm		1 x 12 cm		2 x 9.2 cm	
AC adapter, 90W, 100 - 240V		AC adapter, 90W, 100 - 240V		AC adapter, 60W, 100 - 240V		AC adapter, 60W, 100 - 240V		AC adapter, 90W, 100 - 240V		AC adapter, 120W, 100 - 240V	
---		---		Default: 8, Max: 128 (optional license purchase)		Default: 8, Max: 128 (optional license purchase)					
Default: 2, Max: 30 (optional license purchase)		Default: 2, Max: 30 (optional license purchase)		Default: 2, Max: 32 (optional license purchase)		Default: 4, Max: 40 (optional license purchase)					
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.											

All specifications are subject to change without notice

* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

	TS-332X	TS-328	TS-x31P3 Series	
Model	TS-332X	TS-328	TS-231P3	TS-431P3
				
CPU	AnnapurnaLabs, an Amazon company Alpine AL-324 4-core 1.7GHz	Realtek RTD1296 quad-core 1.4 GHz processor	AnnapurnaLabs Alpine AL-314 ARM® quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL-314 ARM® quad-core 1.7GHz processor
Memory	4 GB DDR4 2400 (1 x 4 GB) 2 GB DDR4 2400 (1 x 2 GB) (Max 16GB)	2GB DDR4 on-board	1 GB DDR3L (1 x 1 GB) (Max 8 GB)	1 GB DDR3L (1 x 1 GB) (Max 8 GB)
Drive Bay *	3 x 3.5-inch	3 x 3.5-inch	2 x 3.5-inch	4 x 3.5-inch
HDD Interface	SATA 6 Gb/s HDD / SSD	SATA 6 Gb/s HDD / SSD	SATA 6 Gb/s HDD / SSD	
M.2 SSD	3 x M.2 2280 SATA 6Gb/s	---	---	
HDD Hot Swappable	✓	✓	✓	
LAN Port	1 x 10GbE SFP+ 2 x 1GbE	2 x 1GbE	2 x 2.5GbE	
PCI-E Slot	---	---	---	
Thunderbolt™	---	---	---	
USB 3.1	---	---	---	
USB 3.0 / USB 2.0	3/0	2 / 1	3/0	
ODD Expansion Slot	---	---	---	
HDMI	---	---	---	
Dimensions (HxWxD) mm	142 x 150 x 260.1	142 x 150 x 260.1	161 x 102 x 219	161 x 160 x 219
Weight (kg)	1.64	1.64	1.35	3
Fan	1 x 14 cm	1 x 9 cm	1 x 7cm	1 x 12cm
Power Supply	AC adapter, 90W, 100-240V	AC adapter, 60W, 100 - 240V	AC adapter, 60W, 100 - 240V	AC adapter, 90W, 100 - 240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 16 (based on IP CAM setting)	Default 8, Max 16 (based on IP CAM setting)	---	
Max. # of IP Cameras (Surveillance)	Default: 2, Max.: 24 (optional license purchase)	Default: 2, Max.: 24 (optional license purchase)	Default: 2, Max.: 25 (optional license purchase)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.			





	Enterprise ZFS NAS	Enterprise/SMB/SOHO/Home NAS	TS-230	TS-328	TS-128A
Max.# of User Accounts	4000	4096	600	600	600
Max.# of User Groups	512	512	128	128	128
Max.# of Shared Folders	1024	512	256	256	256

TSx31K Series			TS-230	TS-x28A
TS-131K	TS-231K	TS-431K	TS-230	TS-128A
				
AnnapurnaLabs Alpine AL-214 ARM® quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL-214 ARM® quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL-214 ARM® quad-core 1.7GHz processor	Realtek RTD1296 quad-core 1.4GHz processor	Realtek RTD1295 quad-core 1.4 GHz processor
1 GB DDR3L	1 GB DDR3L	1 GB DDR3L	2 GB DDR4, not expandable	1GB DDR4 on-board
1 x 3.5-inch	2 x 3.5-inch	4 x 3.5-inch	2 x 3.5-inch	1 x 3.5-inch
SATA 6 Gb/s HDD / SSD			SATA 6 Gb/s HDD / SSD	SATA 6 Gb/s HDD
---			---	---
✓			✓	---
2 x 1GbE			1 x 1GbE	1 x 1GbE
---			---	---
---			---	---
---			---	---
3/0			2/1	1 / 2
---			---	---
---			---	---
161 x 73 x 219	161 x 102 x 219	161 x 160 x 219	188.64 x 90.18 x 156.26	187.7 x 60 x 125
1.16	1.35	3	1.11	0.56
1 x 5cm	1 x 7cm	1 x 12cm	1 x 8 cm	7612 blower
AC adapter, 36W, 100 - 240V	AC adapter, 60W, 100 - 240V	AC adapter, 90W, 100 - 240V	AC adapter, 60W, 100 - 240V	AC adapter, 36W, 100-240V
---			Default 2, Max 24 (based on IP CAM setting)	Default 8, Max 16 (based on IP CAM setting)
Default: 2, Max.: 25 (optional license purchase)			Default: 2, Max.: 16 (optional license purchase)	Default: 4, Max.: 16 (optional license purchase)
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				




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* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

QVR Pro Appliance


Model	VS-2304	VS-2308	VS-4312	VS-4324
				
CPU	Intel® Celeron® J1900	Intel® Celeron® J1900	Intel® Pentium G5400T	Intel® Pentium G5400T
Memory	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)
Drive Bay	2 x 2.5",3.5"	2 x 2.5",3.5"	4 x 2.5",3.5"	4 x 2.5",3.5"
M.2 SSD	---	---	2 x 2280	2 x 2280
HDD Hot Swappable	✓	✓	✓	✓
10GbE LAN port	---	---	---	---
Gigabit LAN	2 x GbE RJ45	2 x GbE RJ45	2 x GbE RJ45	2 x GbE RJ45
PCI-E slot	---	---	1 x PCIe 3.0 x16, 1 x PCIe 3.0 x 4	1 x PCIe 3.0 x16, 1 x PCIe 3.0 x 4
Thunderbolt	---	---	---	---
USB 3.1	---	---	4 x USB 3.1	4 x USB 3.1
USB 3.0/2.0	3/0	3/0	---	---
ODD Expansion Slot	---	---	---	---
Dimensions (HxWxD) mm	150 x 102 x 216	150 x 102 x 216	88.2 x 199.3 x 279.6	88.2 x 199.3 x 279.6
Weight (kg)	1.47	1.47	5.4	5.4
Fan	System: 1 x 70 mm, 12V DC smart fan	System: 1 x 70 mm, 12V DC smart fan	System: 1 x 120 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan	System: 1 x 120 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan
Power Supply	90W, 100-240V	90W, 100-240V	250W, 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz
Embedded Camera Channel	4	8	12	24

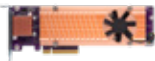
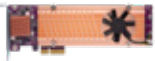

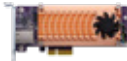
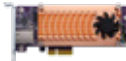
Expansion Units: REXP Series






Model	REXP-1620U-RP	REXP-1220U-RP	REXP-1000 Pro
			
Host Interface	Three SAS 12Gbps 4 x wide port (IN port, OUT port)	Three SAS 12Gbps 4 x wide port (IN port, OUT port)	Two SAS 6Gbps 4 x wide port (IN port, OUT port)
HDD Size & Interface	16 x 3.5-inch/2.5-inch SAS 12Gb/s & SATA 6Gb/s	12 x 3.5-inch/2.5-inch SAS 12Gb/s & SATA 6Gb/s	10 x 3.5-inch/2.5-inch SAS & SATA 6Gb/s
Dimensions (HxWxD) mm	130 x 442.4 x 528.3	88 x 439 x 520	217.5 x 327 x 321.2
Weight (kg)	18.14	14.8	9.24
Supported NAS models	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure list.		





Model	QM2-2S-220A	QM2-2P-244A	QM2-2P-344	QM2-2P-384	QM2-4S-240
					
Connector	2 x M.2 22110 or 2280 SATA SSD	2 x M.2 22110 or 2280 PCIe (Gen2 x 4) NVMe SSD	2 x M.2 22110 or 2280 PCIe (Gen3x 4) NVMe SSD slot		4 x M.2 2280 SATA SSD
PCIe and Lanes	PCIe Gen2 x 2	PCIe Gen2 x 4	PCIe Gen3 x 4	PCIe Gen3 x 8	PCIe Gen2 x 4
Bracket	Low-profile bracket pre-installed; full-height and specialized (for selected QNAP NAS) brackets are included.				




VS-6318	VS-6336	VS-8324	VS-8348
			
Intel® Core™ i3-8100T	Intel® Core™ i3-8100T	Intel® Core™ i5-8400T	Intel® Core™ i5-8400T
8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)
6 x 2.5",3.5"	6 x 2.5",3.5"	8 x 2.5",3.5"	8 x 2.5",3.5"
2 x 2280	2 x 2280	2 x 2280	2 x 2280
✓	✓	✓	✓
---	---	---	---
2 x GbE RJ45	2 x GbE RJ45	2 x GbE RJ45	2 x GbE RJ45
1 x PCIe 3.0 x16, 1 x PCIe 3.0 x4	1 x PCIe 3.0 x16, 1 x PCIe 3.0 x4	1 x PCIe 3.0 x16, 1 x PCIe 3.0 x4	1 x PCIe 3.0 x16, 1 x PCIe 3.0 x4
---	---	---	---
4 x USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1
---	---	---	---
---	---	---	---
188.2 x 264.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 329.3 x 279.6	188.2 x 329.3 x 279.6
6.553	6.553	7.06	7.06
System: 2 x 92 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan	System: 2 x 92 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan	System: 2 x 92 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan	System: 2 x 92 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan
250W, 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz
18	36	24	48

TX Series	EJ Series
TX-800P	EJ1600 v2
	
Two Thunderbolt™2 2 high-speed ports (daisy-chain up to 6)	Two SAS 12/6Gb/s 4 x wide port (SFF-8644)
8 x 3.5-inch/2.5-inch SATA 6Gb/s	16 x 3.5-inch/2.5-inch SAS 12Gb/s
185.2 x 298.2 x 235.4	132 x 446.2 x 618
7.3	24.11
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure list.	

QM2 Series				
QM2-4P-284	QM2-4P-342	QM2-4P-384	QM2-2S10G1TA	QM2-2P10G1TA
				
4 x M.2 2280 PCIe (Gen2 x 4) NVMe SSD	4 x M.2 2280 PCIe (Gen3 x 2) NVMe SSD slots	4 x M.2 2280 PCIe (Gen3 x 4) NVMe SSD slots (M Key)	2 x M.2 2280 SATA SSD slot; 1 x 10GBASE-T port	2 x M.2 2280 PCIe (2.0 x2) NVMe SSD slot; 1 x 10GBASE-T port
PCIe Gen2 x 8	PCIe Gen3 x 4	PCIe Gen3 x 8	PCIe Gen2 x 4	
Low-profile bracket pre-installed; full-height and specialized (for selected QNAP NAS) brackets are included.				

	TR Series			TL USB Series	
Model	TR-004U	TR-004	TR-002	TL-D800C	TL-R1200C-RP
					
Host Interface	USB 3.0	USB 3.0	USB 3.1	USB 3.1 Gen2 Type-C	USB 3.1 Gen2 Type-C
HDD Size & Interface	4 x 3.5-inch/2.5-inch SATA 3Gb/s	4 x 3.5-inch/2.5-inch SATA 3Gb/s	2 x 3.5-inch/2.5-inch SATA 6Gb/s	8 x 3.5-inch / 2.5-inch SATA 6 Gb/s	12 x 3.5-inch / 2.5-inch SATA 6 Gb/s
Compatible Cable	One USB Type-C to Type-A connector cable is included.				
Dimensions (HxWxD) mm	44 x 439 x 291	168.5 x 160.2 x 219	169 x 102 x 219	188.2 X 329.3 X 281.4	88.6 X 482 X 562.5
Weight (kg)	4.03	1.85	1.37	6.18	11.03
Supported Operating Systems	QTS 4.3.6+; Windows 7+ and Windows Server 2012 R2+; macOS X 10.13+; Linux	QTS 4.3.6+; Windows 7+; macOS X 10.11+; Linux	QTS 4.3.6+; Windows 7+ and Windows Server 2012 R2+; macOS X 10.13+; Linux	QTS 4.4.2+/QTS hero h4.5.0+; Windows 8+ and Windows Server 2012 R2+; macOS X 10.13+; Ubuntu 18.04	

	Intel			Marvell
Model	LAN-1G2T-I210	LAN-10G2T-X550	QXG-10G1T	QXG-10G2T-107
				
Controller	Intel Ethernet Controller I210	Intel X550	Aquantia AQtion AQC107	Aquantia AQtion AQC107
Transmission Rates	1Gbps/100Mbps	10Gbps	10Gbps/5Gbps/2.5Gbps/1Gbps/100Mbps	
Connector	RJ45	NBASE-T (RJ45)		NBASE-T (RJ45)
Interface	PCIe Gen2 x 1	PCIe Gen3 x 4	PCIe Gen3 x 4	PCIe Gen2 x 4
Supported Operating Systems	QTS			QTS;
Bracket	Low-profile bracket pre-installed; full-height bracket optional			
Port and Cable	RJ45; over CAT 5 class cable recommended	RJ45; over CAT 6 class cable recommended		

Model	QDA-A2AR	QDA-A2MAR	QDA-SA
			
Application	Dual 2.5-inch to 3.5-inch Drive Adapter with RAID Support	Dual M.2 to 2.5-inch Drive Adapter with RAID Support	6Gbps SAS to SATA Adapter for QNAP enterprise ZFS NAS 3.5-inch drive trays
Supported Drives	2 x 2.5-inch SATA 6Gbps HDD/SSD (up to 9.5 mm in height)	2 x M.2 2280 SATA SSD	1 x 3.5-inch/2.5-inch SATA 6Gbps HDD/SSD
Host Interface	SATA 6Gbps	SATA 6Gbps	SAS 6Gbps
Supported Operating Systems	1. QTS 4.4.1 (or later) 2. Windows: Windows 7 (or later), Windows Server 2012 R2 (or later) 3. Linux	1. QTS 4.4.1 (or later) 2. Windows: Windows 7 (or later), Windows Server 2012 R2 (or later) 3. Linux	---
Supported Host	PC & NAS	PC & NAS	ES1640dc v2 ES1686dc EJ1600 v2

TL SATA Series


TL-D400S	TL-D800S	TL-D1600S	TL-R400S	TL-R1200S-RP
				
1 x SFF-8088	2 x SFF-8088	4 x SFF-8088	1 x SFF-8088	3 x SFF-8088
4 x 3.5-inch / 2.5-inch SATA 6 Gb/s	8 x 3.5-inch / 2.5-inch SATA 6 Gb/s	12 x 3.5-inch / 2.5-inch SATA 6 Gb/s 4 x 2.5-inch SATA 6 Gb/s	4 x 3.5-inch / 2.5-inch SATA 6 Gb/s	12 x 3.5-inch / 2.5-inch SATA 6 Gb/s
One 1M SFF-8088 to SFF-8088 cable is included.	Two 1M SFF-8088 to SFF-8088 cables are included.	Four 1M SFF-8088 to SFF-8644 cables are included.	One 1M SFF-8088 to SFF-8088 cable is included.	Three 1M SFF-8088 to SFF-8644 cables are included.
168.5 x 160.2 x 219	188.2 x 329.3 x 279.6	303.84 x 369.89 x 319.8	542 x 415 x 179	719 x 552 x 253
3.66	11.03	11.59	3.98	11.14
QTS 4.4.2+/QTS hero h4.5.0+; Windows 8+ and Windows Server 2012 R2+; Ubuntu 18.04				


Marvell AQtion			Mellanox		
QXG-5G1T-111C	QXG-5G2T-111C	QXG-5G4T-111C	QXG-10G2SF-CX4	QXG-25G2SF-CX4	LAN-40G2SF-MLX
					
Marvell AQtion AQC111C			Mellanox ConnectX-4 Lx	Mellanox ConnectX-4 Lx	Mellanox ConnectX-3 Pro EN
5Gbps/ 2.5Gbps/ 1Gbps/ 100Mbps			10Gbps	25Gbps/10Gbps	40Gbps
RJ45 (RJ45)			SFP+	SFP28	QSFP+
PCIe Gen2 x 1	PCIe Gen3 x 2	PCIe Gen3 x 4	PCIe Gen3 x 8	PCIe Gen3 x 8	PCIe Gen3 x 8
Windows; Linux			QTS; Windows; Linux		
Standard and specialized (for selected QNAP NAS) brackets are included					
RJ45; over CAT 5e class cable recommended			SFP+ DAC cable or SFP+ OPTIC transceiver	SFP28 DAC cable or SFP28 OPTIC transceiver	QSFP+ DAC cable or QSFP+ OPTIC transceiver





QDA Series			
QDA-SA2	QDA-SA3	QDA-UMP	QDA-U2MP
			
6Gbps SAS to SATA Adapter	6Gbps SAS to SATA Adapter for QNAP enterprise ZFS NAS 2.5-inch drive trays	M.2 PCIe NVMe SSD to U.2 adapter	Dual M.2 PCIe NVMe SSD to U.2 adapter
1 x 2.5-inch SATA 6Gbps HDD/SSD	1 x 2.5-inch SATA 6Gbps HDD/SSD	1 x M.2 2280 PCIe (3.0 x4) NVMe SSD	2 x M.2 2280 PCIe (3.0 x4) NVMe SSD
SAS 6Gbps	SAS 6Gbps	U.2 (SFF-8639) PCIe NVMe 3.0 x4	U.2 (SFF-8639) PCIe NVMe 3.0 x4
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Dual-controller Servers ES1640dc v2 ES1686dc EJ1600 v2	ES2486dc	PC & NAS	PC & NAS



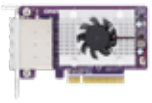

All specifications are subject to change without notice

* The standard system is shipped without hard drives. Check www.qnap.com for HDD compatibility list.

Wireless Adapter	
Model	QWA-AC2600
	
Interface	PCIe Gen2 x 1
Network Standard	IEEE 802.11b/g/n 2.4 GHz IEEE 802.11a/n/ac 5 GHz
bandwidth	802.11a: up to 54 Mbps 802.11b: up to 11 Mbps 802.11g: up to 54 Mbps 802.11n: up to 800 Mbps 802.11ac: up to 1733 Mbps
Antenna	4 x Dual-band RP-SMA antennas
Operating Frequency	2.4 GHz / 5 GHz Dual-band dual-concurrent
Dimensions (H x W x D) mm	160 x 90.3 x 20.6 mm
OS Support	QTS 4.3.4 and WirelessAP Station 1.0

Mustang-F100	
Model	Mustang-F100-A10-R10
	
Interface	PCIe Gen3 x 8
Main FPGA	Intel® Arria® 10 GX1150 FPGA
Operating Systems	PC: Ubuntu 16.04.3 LTS 64-bit, CentOS 7.4 64-bit, Windows 10 (More OS are coming soon) NAS: QTS (Installing "Mustang Card User Driver" in the QTS App Center is required.)
Memory	8G on board DDR4
Dimensions (H x W x D)	169.5 mm x 68.7 mm x 33.7 mm
Power Connector	Preserved PCIe 6-pin 12V external power


QSW Series					Model
Model	QSW-1208-8C	QSW-804-4C	QSW-308S	QSW-308-1C	
					
10G SFP+ (fiber) ports	4		3	2	IC
10G SFP+ (fiber) and RJ-45 (copper) ports (combo)	8	4	---	1	Interface
Switching capacity	240 Gbps	160 Gbps	76Gbps	76Gbps	Data Transfer
MAC address caching capacity	27K		16K	16K	
Power Supply Unit	100 - 240 V AC, 50 - 60 Hz		100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz	
Fan	2		Fanless	Fanless	Cables
Dimensions (H x W x D) mm	43 x 285 x 233 mm		42.5 x 290 x 127 mm	42.5 x 290 x 127 mm	
Weight (kg)	2.15	2.1	1.16 kg	1.19 kg	System Requirements
Supported standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3x Full-Duplex Flow Control IEEE 802.1p Class of Service IEEE 802.3az Energy Efficient Ethernet (EEE) IEEE 802.3an 10GBASE-T IEEE 802.3bz 5Gbps and 2.5Gbps Ethernet Over Copper Twisted Pair Cable IEEE 802.3ae 10-Gigabit Ethernet Over Fiber IEEE 802.3aq 10-Gigabit over Fiber (10GBASE-LRM) IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX		IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3an 10GBASE-T IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet	Dimensions (H x W x D) mm Weight (kg)

QXP Series				Storage Expansion Card
Model	QXP-400eS	QXP-800eS	QXP-1600eS	SAS-12G2E
				
Connector	1 x SFF-8088 port	2 x SFF-8088 port	4 x SFF-8644 port	2 x wide port
Interface	PCIe Gen3 x 2	PCIe Gen3 x 4	PCIe Gen3 x 8	PCIe Gen3 x 8
Supported Operating Systems	QTS 4.4.1+; Windows 7+ and Windows Server 2016+; Ubuntu 18.04			QTS
Bracket	Low-profile bracket pre-installed; full-height and specialized (for selected QNAP NAS) brackets are included			
Compatible Cable	One 1M SFF-8088 to SFF-8088 cable is included.	Two 1M SFF-8088 to SFF-8088 cables are included.	Four 1M SFF-8644 cables are included.	mini SAS SFF-8644 or SFF-8644 to SFF-8088 cable

Mustang-F100

Model	Mustang-F100-A10-R10
	
Interface	PCIe Gen2 x 4
Main Chip	Eight Intel® Movidius™ Myriad™ X MA2485 VPU
Operating Systems	PC: Ubuntu 16.04.3 LTS 64-bit, CentOS 7.4 64-bit, Windows 10 (More OS are coming soon) NAS: QTS (Installing "Mustang Card User Driver" in the App Center is required.)
Dimensions (H x W x D)	169.54 mm x 80.05 mm x 23.16 mm
Power Connector	Preserved PCIe 6-pin 12V external power

QGD Series

Model	QGD-1600P
	
CPU	Intel® Celeron® J4115 quad-core 1.8 GHz processor (burst up to 2.5 GHz)
Memory	4 GB / 8 GB
Drive Bay *	2 x 2.5"
HDD Interface	SATA 6Gb/s SSD
PCIe Slot	2
1GbE SFP/RJ45 Combo Ports	2
1GbE (RJ45)	14
Total PoE Ports	16
Management Port	1
PoE PSE (802.3af, 15.4W)	Ports 1-16
PoE+ PSE (802.3at, 30W)	Ports 1-16
PoE++ PSE (802.3bt, 60W)	Ports 1-4
PoE Power Output	Ports 1-4 (60W), Ports 5-16 (30W)
Total PoE Power Budget	370W
USB 3.0 /USB 2.0	1/2
HDMI Output	1
Max. Power Consumption	418W
Fan	System: 2 x 4 cm (12V DC)
Dimensions (H x W x D) mm	160 x 528 x 403
Weight (KG)	5.56
Supported standards	IEEE 802.3 10Tx Ethernet IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3z 1000Base-X IEEE 802.3x Full-duplex flow control IEEE 802.3af/at/bt Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization

QNA Series

QNA-T310G1T	QNA-T310G1S	QNA-UC5G1T
		
AQC107S	AQC100S	AQC111U
Single-port Thunderbolt 3 to single-port 10GbE NBASE-T RJ-45	Single-port Thunderbolt 3 to single-port 10GbE SFP+	USB 3.0 to 5G/2.5G/1G/100M RJ45 port
10Gbps; 5Gbps; 2.5Gbps; 1Gbps; 100Mbps	10Gbps	5Gbps; 2.5Gbps; 1Gbps; 100Mbps
Thunderbolt 3: Thunderbolt 3 cable Network Cable: over CAT 6 class cable recommended	Thunderbolt 3 : Thunderbolt 3 cable Network cable: SFP+ DAC cable	USB 3.0 Type-C to Type-A cable or USB Type-C to Type-C cable
Windows: Windows 7, 10 (64-bit) Mac: macOS 10.13.3 (or later) Linux: Linux core 3.10, 3.12, 3.2, 4.2, 4.4		Windows: Windows 7, 8, 8.1, 10 Mac: will be supported in the latest macOS Linux: Linux core 3.10, 3.12, 3.2, 4.2, 4.4
27.6 x 56 x 112 mm	27.6 x 56 x 113.2 mm	99.8 x 28 x 27.85 mm
0.19	0.16	0.11

USB Expansion Card




USB-U31A2P01



2 x USB 3.1 Gen2 Type-A port

PCIe Gen2 x 2

Mustang-200

Model	Mustang-200-i7-1T/32G-R10	Mustang-200-i5-1T/32G-R10	Mustang-200-C-8G-R10
			
Interface	PCIe Gen2 x 4		
CPU	Intel Core i7-7567U processor 3.5GHz (burst up to 4.0 GHz) x2	Intel Core i5-7267U processor 3.1GHz (burst up to 3.5 GHz) x2	Intel Celeron 3865U processor 1.8GHz x2
Graphics	Intel Iris™ Plus Graphics 650		Intel® HD Graphics 610
Memory	16GB (2 x 8GB) DDR4 (per CPU) Max 32GB (4 x 8GB)		4GB (2 x 2GB) DDR4 (per CPU) Max 32GB (4 x 8GB)
M.2 SSD Slot	1 PCIe Gen x4 port (per CPU) Built-in Intel 600P 512GB NVMe M.2 SSD (per CPU)		1 PCIe Gen x4 port (per CPU)
Dimensions (H x W x D)	40 x 210 x 111 mm		
Power Supply Unit	12V PCIe 6-pin power input		



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