

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-1253BU / TS-1253BU-RP

TS-853BU / TS-853BU-RP

TS-453BU / TS-453BU-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-x53BU Series:

TS-1253BU-RP, TS-1253BU, TS-853BU-RP, TS-853BU, TS-453BU-RP, TS-453BU

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.



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.

■ 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



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		TDS-16489U R2	
Model	ES2486dc	ES1686dc	<div>TDS-16489U-SE1-R2</div> <div>(E5-2620 2.4GHz hexa-core CPU, 64GB DDR4 RDIMM)</div> <div>TDS-16489U-SF2-R2</div> <div>(E5-2620 2.4GHz hexa-core CPU, 128GB DDR4 RDIMM)</div>
			<div>TDS-16489U-SE2-R2</div> <div>(E5-2630 2.4GHz octa-core CPU, 128GB DDR4 RDIMM)</div> <div>TDS-16489U-SF3-R2</div> <div>(E5-2630 2.4GHz octa-core CPU, 256GB DDR4 RDIMM)</div>
			
CPU	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller Intel® Xeon® D-2123IT 4-core 2.20 GHz processor (burst up to 3.0 GHz) per controller	E5-2620 v4 8-core 2.1 GHz processor x2 E5-2630 v4 10-core 2.2 GHz processor x2
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)	64 GB DDR4 (8 x 8 GB) 128 GB DDR4 (8 x 16 GB) 256 GB DDR4 (8 x 32GB) (Max 1 TB)
Drive Bay *	24 x 2.5-inch	16 x 3.5-inch	16 x 3.5-inch, 4 x 2.5-inch
HDD Interface	SAS 12Gb/s, backward-compatible to SAS 6Gb/s	SAS 12Gb/s, backward-compatible to SAS 6Gb/s	SAS 12Gb/s, backward-compatible to SAS/SATA 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	4 x 10GbE SFP+
PCI-E Slot	2 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x8	2 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x8	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
Thunderbolt™	---	---	---
USB 3.2 Gen 2	---	---	---
USB 3.2 Gen 1 / USB 2.0	2 x USB 3.2 Gen 1 per controller	2 x USB 3.2 Gen 1 per controller	4 / 0
ODD Expansion Slot	---	---	---
HDMI	---	---	---
Dimentions (HxDxW) mm	88.3 x 483 x 545.1	132 × 483.05 × 630.62	130.8 × 444 × 744
Weight (kg)	27.41	25.83	22.42
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)	4 x 6 cm
Power Supply	700W(x2), 90-264V	700W(x2), 90-264V	770W(x2), 100-240V
Max.# of IP Cameras (Supported QVR Pro)	---	---	Default: 8, Max.: 128 (optional license purchase)
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.		Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.

	TS-1886XU-RP		TES-x85U Series	TVS-ECx80U-SAS-RP R2 Series				TS-2888X
Model	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
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>								
CPU	Intel® Xeon® D-1602 dual-core 2.50 GHz processor (burst up to 3.2 GHz) Intel® Xeon® D-1622 quad-core 2.60 GHz processor (burst up to 3.2 GHz)		Intel® Xeon® D-1521 quad-core 2.4 GHz processor, Max turbo to 2.7 GHz Intel® Xeon® D-1531 6-core 2.2 GHz processor, Max turbo to 2.7 GHz	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				Intel® Xeon® W-2195 18-core 2.3 GHz processor (burst up to 4.3 GHz) Intel® Xeon® W-2175 14-core 2.5 GHz processor (burst up to 4.3 GHz) Intel® Xeon® W-2145 8-core 3.7 GHz processor (burst up to 4.5 GHz) Intel® Xeon® W-2133 6-core 3.6 GHz processor (burst up to 3.9 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)	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)
Drive Bay *	Front: 12 x 3.5-inch Rear: 6 x 2.5-inch		Front: 12 x 3.5-inch Rear: 6 x 2.5-inch	24 x 3.5-inch	16 x 3.5-inch	9 x 3.5-inch 6 x 2.5-inch	12 x 3.5-inch	8 x 3.5-inch 20 x 2.5-inch
HDD Interface	Front: SATA 6Gb/s HDD / SSD Rear: SATA 6Gb/s SSD		Front: SAS 12Gb/s & SATA 6Gb/s HDD / SSD Rear: SATA 6Gb/s SSD	SAS 12Gb/s & SATA 6Gb/s HDD / SSD				SATA 6Gb/s HDD / SSD U.2 PCIe Gen3 x4 NVMe SSD
M.2 SSD	---		---	---				---
HDD Hot Swappable	✓		✓	✓				✓
LAN Port	2 x 10GbE SFP+ 4 x 1GbE		2 x 10GbE SFP+ 4 x 1GbE	2 x 10GbE SFP+ 4 x 1GbE				2 x 10GBASE-T 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	2 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4				8 Slot 1: PCIe Gen 3 x8 or x4 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x8 or x4 Slot 4: PCIe Gen 3 x4 Slot 5: PCIe Gen 3 x8 or x4 Slot 6: PCIe Gen 3 x4 Slot 7: PCIe Gen 3 x4 Slot 8: PCIe Gen 3 x4
Thunderbolt™	---		---	---				---
USB 3.1	---		---	---				---
USB 3.2 Gen 1 / USB 2.0	2 / 0		2 / 0	4 / 4				6 / 4
ODD Expansion Slot	---		---	---				---
HDMI	---		---	1				---
Dimensions (HxWxD) mm	88.3 x 482 x 549.7		88 x 442.5 x 530.5	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
Weight (kg)	12.73		15.34	23.08	18.3	14.18		31.46
Fan	3 x 6 cm		4 x 6 cm	4 x 8 cm		4 x 6 cm		1 x 9 cm 9 x 12 cm
Power Supply	550W(x2), 100-240V		450W(x2), 100-240V	650W(x2), 100-240V		450W(x2), 100-240V		2000W, 200-240Vac
Max. # of IP Cameras (Supported QVR Pro)	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 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)	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.			Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				















	TS-x83XU Series					TS-x77XU Series		
Model	TS-2483XU-RP	TS-1683XU-RP	TS-1283XU-RP	TS-983XU/TS-983XU-RP	TS-883XU/TS-883XU-RP	TS-2477XU-RP	TS-1677XU-RP	TS-1277XU-RP
								
CPU	Intel® Xeon® E-2136 6-core 3.3 GHz processor	Intel® Xeon® E-2124 4-core 3.3 GHz processor				AMD Ryzen™ 7 2700 8-core 3.2 GHz processor, Turbo Core 4.1 GHz AMD Ryzen™ 5 2600 6-core 3.4 GHz processor, Turbo Core 3.9 GHz	AMD Ryzen™ 7 2700 8-core 3.2 GHz processor, Turbo Core 4.1 GHz AMD Ryzen™ 5 2600 6-core 3.4 GHz processor, Turbo Core 3.9 GHz AMD Ryzen™ 3 1200 4-core 3.1 GHz processor, Turbo Core 3.4 GHz	AMD Ryzen™ 5 2600 6-core 3.4 GHz processor, Turbo Core 3.9 GHz AMD Ryzen™ 3 1200 4-core 3.1 GHz processor, Turbo Core 3.4 GHz
Memory	16 GB DDR4 ECC (2 x 8 GB) (Max 64 GB)	8 GB DDR4 ECC (2 x 4 GB) (Max 64 GB)				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)
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	24 x 3.5-inch	16 x 3.5-inch	12 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+ 4 x 1GbE			2 x 10GbE SFP+ 2 x 1GbE	2 x 10GbE SFP+ 4 x 1GbE	2 x 10GbE SFP+ 2 x 1GbE		
PCI-E Slot	5 Slot 1: PCIe Gen 2 x4 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 2 x4 Slot 4: PCIe Gen 3 x8 Slot 5: PCIe Gen 2 x4	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	1 Slot 1: PCIe Gen 3 x16	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 x4 Slot 3: PCIe Gen 3 x8 or x4 Slot 4: PCIe Gen 3 x4	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 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 x4 Slot 2: PCIe Gen 3 x8 or x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or x4
Thunderbolt™	---					---		
USB 3.2 Gen 2	2 x Type-C, 4 x Type-A					1 x Type-C, 1 x Type-A		
USB 3.2 Gen 1 / USB 2.0	---					4 / 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	176.15 x 481.04 x 672.02	130 x 481 x 573.5	88.3 x 482 x 562
Weight (kg)	20.67	13.76	11.75	7.48 / 8.63	10.39 / 10.99	22.66	15.26	13.73
Fan	4 x 9.2 cm		2 x 6 cm	3 x 4 cm	2 x 6 cm	4 x 9.2 cm	4 x 9.2 cm	2 x 7 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	800W(x2), 100-240V	500W(x2), 100-240V	300W (x2), 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: 8, Max.: 80 (optional license purchase)		
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.		

	TS-x77XU Series				TVS-x72XU Series				
Model	TS-977XU-RP	TS-977XU	TS-877XU-RP	TS-877XU	TVS-2472XU-RP	TVS-1672XU-RP	TVS-1272XU-RP	TVS-972XU/ TVS-972XU-RP	TVS-872XU/ TVS-872XU-RP
									
CPU	AMD Ryzen™ 5 2600 6-core 3.4 GHz processor, Turbo Core 3.9 GHz AMD Ryzen™ 3 1200 4-core 3.1 GHz processor, Turbo Core 3.4 GHz	AMD Ryzen™ 3 1200 quad-core 3.1 GHz processor, Turbo Core 3.4 GHz	AMD Ryzen™ 5 2600 6-core 3.4 GHz processor, Turbo Core 3.9 GHz AMD Ryzen™ 3 1200 4-core 3.1 GHz processor, Turbo Core 3.4 GHz	AMD Ryzen™ 3 1200 4-core 3.1 GHz processor, Turbo Core 3.4 GHz	Intel® Core™ i5-8500 6-core 3.0 GHz processor, Max turbo to 4.1 GHz	Intel® Core™ i3-8100 4-core 3.6 GHz processor			
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)	8 GB DDR4 (2 x 4 GB) (Max 64 GB)		4 GB DDR4 (1 x 4 GB) (Max 64 GB)		
Drive Bay [*]	4 x 3.5-inch, 5 x 2.5-inch		8 x 3.5-inch		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		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		2 x 10GbE SFP+ 4 x 1GbE			2 x 10GbE SFP+ 2 x 1GbE	2 x 10GbE SFP+ 4 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		⁵ Slot 1: PCIe Gen 2 x4 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 2 x4 Slot 4: PCIe Gen 3 x8 Slot 5: PCIe Gen 2 x4	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		¹ Slot 1: PCIe Gen 3 x16	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
Thunderbolt™	---				---				
USB 3.2 Gen 2	1 x Type-A		1 x Type-C, 1 x Type-A		2 x Type-C, 4 x Type-A			2 x Type-C, 2 x Type-A	2 x Type-C, 4 x Type-A
USB 3.2 Gen 1 / USB 2.0	4 / 0				---			2 / 0	---
ODD Expansion Slot	---				---				
HDMI	---		---		1				
Dimensions (HxWxD) mm	43.3 × 482.6 × 505.54	43.3 × 482.6 × 484.15	88.3 x 482 x 562		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)	8.62	7.44	13.31	11.98	20.67	15.35	12.25	7.48 / 8.63	10.93 / 11.89
Fan	3 x 4 cm		2 x 7cm		4 x 9.2 cm		2 x 6 cm	3 x 4 cm	2 x 6 cm
Power Supply	300W(x2), 100-240V	250W, 100-240V	300W (x2), 100-240V	350W, 100-240V	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)				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.				Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				








	TS-x73U Series						TS-x63XU Series			TS-x32XU Series			QTS hero NAS 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	TS-1232XU TS-1232XU-RP	TS-832XU TS-832XU-RP	TS-432XU TS-432XU-RP	TS-h1283XU-RP	TS-h1277XU-RP	TS-h977XU-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			AnnapurnaLabs Alpine AL-324 ARMv8 Cortex-A57 quad-core 1.7GHz			Intel® Xeon® E-2236 6-core 3.4 GHz processor (burst up to 4.8 GHz)	AMD Ryzen™ 7 3700X 8-core 3.4 GHz processor, Turbo Core 4.4 GHz	AMD Ryzen™ 7 3700X 8-core 3.4 GHz processor, Turbo Core 4.4 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)						4 GB DDR3L (1 x 4 GB) (Max 16GB)			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)
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	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
HDD Interface	SATA 6Gb/s HDD / SSD						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 SSD						---			---			---		
HDD Hot Swappable	✓						✓			✓			✓		
LAN Port	2 x 10GbE SFP+ 4 x 1GbE						1 x 10GBASE-T 4 x 1GbE			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
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			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 x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or x4	1 Slot 1: PCIe Gen 3 x16
Thunderbolt™	---						---			---			---		
USB 3.2 Gen 2	---						---			---			2 x Type-C, 4 x Type-A	1 x Type-C, 1 x Type-A	1 x Type-A
USB 3.2 Gen 1 / USB 2.0	2 / 4						2 / 2		2 / 3	4 / 0			0 / 0	4 / 0	4 / 0
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	89 x 482 x 534		44 x 439 x 499	88.3 × 482 × 562	88.3 × 482 × 562	43.3 × 482.6 × 505.54
Weight (kg)	15.01	14.25	11.98	10.75	11.3	9.85	16.14	11.02	7.58 / 9.3	9.83 / 11.34	9.45 / 10.94	6.54 / 8.06	11.75	13.73	8.62
Fan	4 x 9.2 cm		2 x 7 cm				2 x 7 cm		2 x 4 cm	2 x 7 cm		2 x 4 cm	2 x 60mm	2 x 70mm	3 x 40mm
Power Supply	500W(x2), 100-240V	350W, 100-240V	300W(x2), 100-240V	350W, 100-240V	250W(x2), 100 - 240V	250W, 100 - 240V	250W/300W(x2), 100-240V	250W/250W(x2), 100-240V		250W/250W(x2), 100-240V			300W(x2), 100-240V	300W(x2), 100-240V	300W(x2), 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)			Default 8, Max 128 (based on IP CAM setting)			Default: 8, Max.: 128 (optional license purchase)		
Max. # of IP Cameras (Surveillance)	Default: 4, Max.: 72 (optional license purchase)						Default: 4, Max.: 40 (optional license purchase)			Default: 2, Max.: 24 (optional license purchase)			---		
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.									Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					

	TVS-1582TU	TS-451DeU	TS-x53BU Series			TS-431XeU	TVS-1282T3		TVS-882ST3		
Model	TVS-1582TU	TS-451DeU	TS-453BU TS-453BU-RP	TS-853BU TS-853BU-RP	TS-1253BU TS-1253BU-RP	TS-431XeU	TVS-1282T3		TVS-882ST3		
											
CPU	Intel® Core™ i5-7500 quad-core 3.4 GHz processor, Max Turbo to 3.8 GHz Intel® Core™ i7-7700 quad-core 3.6 GHz processor, Max Turbo to 4.2 GHz	Intel® Celeron® J4025 dual-core 2.0 GHz processor (burst up to 2.9 GHz)	Intel® Celeron® J3455 quad-core 1.5 GHz processor (burst up to 2.3 GHz)			AnnapurnaLabs Alpine AL-314 32-bit ARM® Cortex-A15 quad-core 1.7GHz processor	Intel® Core™ i5-7500 quad-core 3.4 GHz processor, Max Turbo to 3.8 GHz	Intel® Core™ i7-7700 quad-core 3.6 GHz processor, Max Turbo to 4.2 GHz	Intel® Core™ i7-6700HQ quad-core 2.6 GHz (burst up to 3.5 GHz)	Intel® Core™ i5-6442EQ quad-core 1.9 GHz (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)	2 GB DDR3L (1 x 2 GB) 4 GB DDR3L (1 x 4 GB) (Max 8 GB)	4 GB DDR3L (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) 64GB DDR4 (4 x 16GB) (Max 64 GB)		8 GB DDR4 (2 x 4 GB) 16 GB DDR4 (2 x 8 GB) (Max 32 GB)	8 GB DDR4 (2 x 4 GB) (Max 32 GB)	
Drive Bay *	6 x 2.5-inch, 9 x 3.5-inch	4 x 3.5-inch	4 x 3.5-inch	8 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch	8 x 3.5-inch, 4 x 2.5-inch		8 x 2.5-inch		
HDD Interface	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD			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 2242 / 2260 / 2280 / 22110 SATA 6Gb/s		---		
HDD Hot Swappable	✓	✓	✓		✓	✓	✓		✓		
LAN Port	2 x 10GbE SFP+ 4 x 1GbE	2 x 2.5GbE	4 x 1GbE Optional: 5GbE/10GbE network expansion card		4 x 1GbE Optional: 5GbE/10GbE network expansion card	1 x 10GbE SFP+ 2 x 1GbE	2 x 10GBase-T 4 x 1GbE		2 x 10GBase-T 2 x 1GbE		
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		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		
Thunderbolt™	4 x Thunderbolt™ 3	---	---		---	---	4 x Thunderbolt™ 3		2 x Thunderbolt™ 3		
USB 3.2 Gen 2	---	---	---		---	---	---		1 x Type-C, 1 x Type-A		
USB 3.2 Gen 1 / USB 2.0	4 / 4	2 / 2	4 / 0			4 / 0	5 / 0		2 / 0		
ODD Expansion Slot	---	---	---		---	---	---		---		
HDMI	1	---	1		1	---	3		1		
Dimensions (HxWxD) mm	88 x 442.5 x 530.5	43.3 x 430 x 294.9	44 x 439 x 499	89 x 482 x 534	89 x 482 x 534	44 x 439 x 291	234.6 x 369.9 x 319.8		177 x 180 x 235		
Weight (kg)	14.18	4.14	7.46 / 9.27	10.02 / 11.25	10.41 / 11.64	4.15	11.55		3.65		
Fan	4 x 6 cm	3 x 4 cm	2 x 4 cm	2 x 7 cm	2 x 7 cm	3 x 4 cm	3 x 8 cm 2 x 9 cm		1 x 12 cm		
Power Supply	450W(x2), 100-240V	100W, 100-240V	250W/250W(x2), 100-240V	250W/250W(x2), 100-240V	350W/250W(x2), 100-240V	100W, 100-240V	250W, 100V-240V		250W, 100V-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)			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)	
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)			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)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					

	TVS-x72XT Series			TVS-882BRT3		TS-453BT3	TS-1685	TVS-x82 Series		
Model	TVS-872XT	TVS-672XT	TVS-472XT	TVS-882BRT3		TS-453BT3	TS-1685	TVS-1282	TVS-882	TVS-682
										
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)	Intel® Celeron® J3455 quad-core 1.5 GHz (up to 2.3 GHz)	Intel® Xeon® Processor D-1521, 4-core 2.4 GHz, Max Turbo to 2.7 GHz Intel® Xeon® Processor D-1531, 6-core 2.2 GHz	Intel® Core™ i3 7100 dual-core 3.9 GHz Intel® Core™ i5-7500 quad-core 3.4 GHz, Max Turbo to 3.8 GHz Intel® Core™ i7-7700 quad-core 3.6 GHz, Max Turbo to 4.2 GHz	Intel® Core™ i3-7100 dual-core 3.9 GHz Intel® Core™ i5-7500 quad-core 3.4 GHz, Max Turbo to 3.8 GHz	Intel® Core™ i3-7100 dual-core 3.9 GHz processor
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)	8 GB DDR3L (2 x 4GB) (Max 8GB)	8 GB DDR4 (1 x 8 GB) 16 GB DDR4 (2 x 8 GB) 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)
Drive Bay [*]	8 x 3.5-inch	6 x 3.5-inch	4 x 3.5-inch	8 x 3.5-inch		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
HDD Interface	SATA 6Gb/s HDD/SSD			SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDDs/SSDs	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		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		
HDD Hot Swappable	✓			✓		✓	✓	✓		
LAN Port	1 x 10GBASE-T 2 x 1GbE			4 x 1GbE Optional: 5GbE/10GbE network expansion card		1 x 10GBASE-T 2 x 1GbE	2 x 10GBASE-T 4 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		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	
Thunderbolt™	2 x Thunderbolt™ 3			4 x Thunderbolt™ 3		2 x Thunderbolt™ 3	---	---		
USB 3.2 Gen 2	2 x Type-C, 2 x Type-A			---		---	---	---		
USB 3.2 Gen 1 / USB 2.0	1 / 0			5 / 0		5 / 0	3 / 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		2	---	3		
Dimensions (HxWxD) mm	188.2 × 329.3 × 279.6	188.2 × 264.3 × 279.6	188.2 × 199.3 × 279.6	234.6 x 369.9 x 319.8		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
Weight (kg)	7.06	6.553	5.4	11.23		2.51	13.39	11.34	8.85	7.7
Fan	1 x 12 cm 2 x 6 cm			3 x 8 cm 2 x 9 cm		1 x 12 cm	3 x 9.2 cm 2 x 9 cm	3 x 8 cm 1 x 9 cm	2 x 8 cm 1 x 9 cm	1 x 8 cm 1 x 9 cm
Power Supply	250W, 100-240V			250W, 100-240V		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
Max. # of IP Cameras (Supported QVR Pro)	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 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: 8, Max.: 80 (optional license purchase)		Default: 4, Max.: 40 (optional license purchase)	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.						Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.			






	TS-x77 Series			TVS-x73e Series			TS-x73 Series			TVS-x72N Series		TS-x53Be Series		TS-1635AX
Model	TS-1277	TS-877	TS-677	TVS-873e	TVS-673e	TVS-473e	TS-873	TS-673	TS-473	TVS-672N	TVS-872N	TS-453Be	TS-253Be	TS-1635AX
														
CPU	AMD Ryzen™ 7 1700 8-core 3.0 GHz processor, Turbo Core 3.7 GHz AMD Ryzen™ 5 1600 6-core 3.2 GHz processor, Turbo Core 3.6 GHz	AMD Ryzen™ 7 1700 8-core 3.0 GHz processor, Turbo Core 3.7 GHz AMD Ryzen™ 5 1600 6-core 3.2 GHz processor, Turbo Core 3.6 GHz	AMD Ryzen™ 5 1600 6-core 3.2 GHz processor, Turbo Core 3.6 GHz	AMD R-Series RX-421BD quad-core 2.1 GHz (up to 3.4 GHz)			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
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) 16 GB DDR4 (2 x 8 GB) (Max 64 GB)	8 GB DDR4 (2 x 4 GB) (Max 64 GB)	4 GB DDR4 (2 x 2 GB) 8 GB DDR4 (2 x 4 GB) (Max 64 GB)			4 GB DDR4 (2 x 2 GB) 8 GB DDR4 (2 x 4 GB) (Max 64 GB)			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)		4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (1 x 8 GB) (Max 16GB)
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	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
HDD Interface	SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD		SATA 6Gb/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			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
HDD Hot Swappable	✓			✓			✓			✓		✓		✓
LAN Port	4 x 1GbE Optional: 10GbE network expansion card			4 x 1GbE Optional: 5GbE/10GbE network expansion card			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
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			2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4			2 Slot 1: PCIe Gen 3 x16 Slot 2: PCIe Gen 3 x4		1 Slot 1: PCIe Gen 2 x2		2 Slot 1: PCIe Gen 3 x2 Slot 2: PCIe Gen 3 x1
Thunderbolt™	---			---			---			---		---		---
USB 3.2 Gen 2	1 x Type-A, 1 x Type-C			---			---			2 x Type-C, 2 x Type-A		---		---
USB 3.2 Gen 1 / USB 2.0	6 / 0			4 / 0			4 / 0			1 / 0		5 / 0		3 / 0
ODD Expansion Slot	---			---			---			---		---		---
HDMI	---			2			---			1		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	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 × 264.3 × 279.6	188.2 × 329.3 × 279.6	168 x 170 x 226	168 x 105 x 226	303.84 x 369.89 x 319.8
Weight (kg)	11.27	8.86	7.7	6.56	5.63	4.9	6.56	5.85	4.9	6.553	7.06	2.37	1.67	12.06
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	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	1x 12 cm	1 x 7 cm	3 x 9.2 cm 1 x 6 cm
Power Supply	550W, 100-240V	450W, 100-240V	250W, 100-240V	250W, 100-240V			250W, 100 - 240V			250W, 100-240V		AC adapter, 90W, 100 - 240V	AC adapter, 60W, 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)			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)
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)			Default: 4, Max.: 72 (optional license purchase)			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)
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.						Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.							



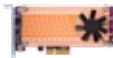
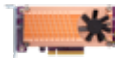





	TS-932X	TS-832X	HS-453DX	TBS-453DX	TS-351	TS-431KX	TS-431X3	TS-251D	TS-x53D Series		
Model	TS-932X	TS-832X	HS-453DX	TBS-453DX	TS-351	TS-431KX	TS-431X3	TS-251D	TS-253D	TS-453D	TS-653D
											
CPU	AnnapurnaLabs Alpine AL-324 Quad-core 1.7GHz	AnnapurnaLabs, Alpine AL-324 Quad-core 1.7GHz	Intel® Celeron® 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	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)
Memory	2 GB DDR4 (1 x 2 GB) 8 GB DDR4 (1 x 8 GB) (Max 16GB)	2GB DDR4 (1 x 2 GB) 8GB DDR4 (1 x 8 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)	2 GB DDR3 (1 x 2 GB) 4 GB DDR3 (1 x 4 GB) (Max 8 GB)	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)
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	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
HDD Interface	SATA 6 Gb/s HDD / SSD	SATA 6 Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	---	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	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	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	1 x 10GbE SFP+ 2 x 1GbE	1 x 10GbE SFP+ 1 x 2.5GbE 1 x 1GbE	1 x 1GbE Optional: 5GbE/10GbE network expansion card	2 x 2.5GbE Optional: 5GbE/10GbE network expansion card		
PCI-E Slot	---	2 Slot 1: PCIe Gen 2 x1 Slot 2: PCIe Gen 2 x2	---	---	---	---	---	1 Slot 1: PCIe Gen 2 x4	1 Slot 1: PCIe Gen 2 x2		
Thunderbolt™	---	---	---	---	---	---	---	---	---		
USB 3.2 Gen 2	---	---	---	---	---	---	---	---	---		
USB 3.2 Gen 1 / USB 2.0	3 / 0	3 / 0	1 x Type-C, 2 x Type-A / 2	3 / 4	1 / 2	3 / 0	3 / 0	2 / 3	2 / 3		
ODD Expansion Slot	---	---	---	---	---	---	---	---	---		
HDMI	---	---	2	1	1	---	---	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	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
Weight (kg)	3.53	6.52	2.4	0.8	1.64	2.03	2.03	1.48	1.67	2.37	3.02
Fan	1 x 14cm	2 x 12 cm 1 x 6 cm	---	1 x Compact internal fan	1 x 9 cm	1 x 12cm	1 x 12cm	1 x 7 cm	1 x 7 cm	1 x 12 cm	2 x 9.2 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	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
Max. # of IP Cameras (Supported QVR Pro)	Default: 8, Max.: 128 (optional license purchase)	Default: 8, Max.: 128 (optional license purchase)	Default: 8, Max.: 128 (optional license purchase)	Default: 8, Max.: 128 (optional license purchase)	Default: 8, Max.: 128 (optional license purchase)	---	---	Default: 8, Max.: 128 (optional license purchase)	Default: 8, Max.: 128 (optional license purchase)		
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)	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)		
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					











	TS-332X	TS-328	TS-x31P3 Series		TSx31K Series			TS-230	TS-x28A
Model	TS-332X	TS-328	TS-231P3	TS-431P3	TS-131K	TS-231K	TS-431K	TS-230	TS-128A
									
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	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
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)	1 GB DDR3L	1 GB DDR3L	1 GB DDR3L	2 GB DDR4, not expandable	1GB DDR4 on-board
Drive Bay [*]	3 x 3.5-inch	3 x 3.5-inch	2 x 3.5-inch	4 x 3.5-inch	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
HDD Interface	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD	SATA 6Gb/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	1 x 2.5GbE 1 x 1GbE		1 x 1GbE	2 x 1GbE		1 x 1GbE	1 x 1GbE
PCI-E Slot	---	---	---		---			---	---
Thunderbolt™	---	---	---		---			---	---
USB 3.2 Gen 2	---	---	---		---			---	---
USB 3.2 Gen 1 / USB 2.0	3 / 0	2 / 1	3 / 0		3 / 0			2 / 1	1 / 2
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	161 x 73 x 219	161 x 102 x 219	161 x 160 x 219	188.64x90.18x156.26	187.7 x 60 x 125
Weight (kg)	1.64	1.64	1.35	3	1.16	1.35	3	1.11	0.56
Fan	1 x 9 cm	1 x 9 cm	1 x 7cm	1 x 12cm	1 x 5cm	1 x 7cm	1 x 12cm	1 x 8 cm	7612 blower
Power Supply	AC adapter, 90W, 100-240V	AC adapter, 60W, 100 - 240V	AC adapter, 60W, 100 - 240V	AC adapter, 90W, 100 - 240V	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
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 2, Max 24 (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)		Default: 2, Max.: 25 (optional license purchase)			Default: 2, Max.: 16 (optional license purchase)	Default: 4, Max.: 16 (optional license purchase)
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				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



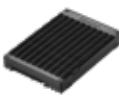
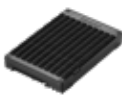
QVR Pro Appliance								
Model	VS-2304	VS-2308	VS-4312	VS-4324	VS-6318	VS-6336	VS-8324	VS-8348
								
CPU	Intel® Celeron® J1900	Intel® Celeron® J1900	Intel® Pentium G5400T	Intel® Pentium G5400T	Intel® Core™ i3-8100T	Intel® Core™ i3-8100T	Intel® Core™ i5-8400T	Intel® Core™ i5-8400T
Memory	8 GB RAM (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)	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"	6 x 2.5",3.5"	6 x 2.5",3.5"	8 x 2.5",3.5"	8 x 2.5",3.5"
M.2 SSD	---	---	2 x 2280	2 x 2280	2 x 2280	2 x 2280	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	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	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	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 3.2 Gen 2	---	---	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1
USB 3.2 Gen 1 / USB 2.0	3/0	3/0	---	---	---	---	---	---
ODD Expansion Slot	---	---	---	---	---	---	---	---
Dimensions (HxWxD) mm	150 x 102 x 216	150 x 102 x 216	88.2 × 199.3 × 279.6	88.2 × 199.3 × 279.6	188.2 × 264.3 × 279.6	188.2 × 264.3 × 279.6	188.2 × 329.3 × 279.6	188.2 × 329.3 × 279.6
Weight (kg)	1.47	1.47	5.4	5.4	6.553	6.553	7.06	7.06
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	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
Power Supply	90W, 100-240V	90W, 100-240V	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	250W, 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz
Embedded Camera Channel	4	8	12	24	18	36	24	48


	Expansion Units: REXP Series			TX Series	EJ Series
Model	REXP-1620U-RP	REXP-1220U-RP	REXP-1000 Pro	TX-800P	EJ1600 v2
					
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)	Two Thunderbolt™2 2 high-speed ports (daisy-chain up to 6)	Two SAS 12/6Gb/s 4 x wide port (SFF-8644)
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	8 x 3.5-inch/2.5-inch SATA 6Gb/s	16 x 3.5-inch/2.5-inch SAS 12Gb/s
Dimensions (HxWxD) mm	130 x 442.4 x 528.3	88 x 439 x 520	217.5 x 327 x 321.2	185.2 x 298.2 x 235.4	132 x 446.2 x 618
Weight (kg)	18.14	14.8	9.24	7.3	24.11
Supported NAS models	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure list.			Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure list.	


	QM2 Series									
Model	QM2-2S-220A	QM2-2P-244A	QM2-2P-344	QM2-2P-384	QM2-4S-240	QM2-4P-284	QM2-4P-342	QM2-4P-384	QM2-2S10G1TA	QM2-2P10G1TA
										
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	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 and Lanes	PCIe Gen2 x 2	PCIe Gen2 x 4	PCIe Gen3 x 4	PCIe Gen3 x 8	PCIe Gen2 x 4	PCIe Gen2 x 8	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.					Low-profile bracket pre-installed; full-height and specialized (for selected QNAP NAS) brackets are included.				


TR Series				TL USB Series		TL SATA Series				
Model	TR-004U	TR-004	TR-002	TL-D800C	TL-R1200C-RP	TL-D400S	TL-D800S	TL-D1600S	TL-R400S	TL-R1200S-RP
										
Host Interface	USB 3.2 Gen 1 Type-C	USB 3.2 Gen 1 Type-C	USB 3.2 Gen 2 Type-C	USB 3.2 Gen 2 Type-C	USB 3.2 Gen 2 Type-C	1 x SFF-8088	2 x SFF-8088	4 x SFF-8088	1 x SFF-8088	3 x SFF-8088
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 6Gb/s	12 x 3.5-inch / 2.5-inch SATA 6Gb/s	4 x 3.5-inch / 2.5-inch SATA 6Gb/s	8 x 3.5-inch / 2.5-inch SATA 6Gb/s	12 x 3.5-inch / 2.5-inch SATA 6Gb/s 4 x 2.5-inch SATA 6Gb/s	4 x 3.5-inch / 2.5-inch SATA 6Gb/s	12 x 3.5-inch / 2.5-inch SATA 6Gb/s
Compatible Cable	One USB Type-C to Type-A connector cable is included.					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.
Dimensions (HxWxD) mm	44 × 439 × 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	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
Weight (kg)	4.03	1.85	1.37	6.18	11.03	3.66	11.03	11.59	3.98	11.14
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		QTS 4.4.2+/QTS hero h4.5.0+; Windows 8+ and Windows Server 2012 R2+; Ubuntu 18.04				


	Intel		Marvell AQtion					Mellanox		
Model	LAN-1G2T-I210	LAN-10G2T-X550	QXG-10G1T	QXG-10G2T-107	QXG-5G1T-111C	QXG-5G2T-111C	QXG-5G4T-111C	QXG-10G2SF-CX4	QXG-25G2SF-CX4	LAN-40G2SF-MLX
										
Controller	Intel Ethernet Controller I210	Intel X550	Aquantia AQtion AQC107	Aquantia AQtion AQC107S	Marvell AQtion AQC111C			Mellanox ConnectX-4 Lx	Mellanox ConnectX-4 Lx	Mellanox ConnectX-3 Pro EN
Transmission Rates	1Gbps/100Mbps	10Gbps	10Gbps/5Gbps/2.5Gbps/1Gbps/100Mbps		5Gbps/ 2.5Gbps/ 1Gbps/ 100Mbps			10Gbps	25Gbps/10Gbps	40Gbps
Connector	RJ45	NBASE-T (RJ45)	NBASE-T (RJ45)					SFP+	SFP28	QSFP+
Interface	PCIe Gen2 x 1	PCIe Gen3 x 4	PCIe Gen3 x 4	PCIe Gen2 x 4	PCIe Gen2 x 1	PCIe Gen3 x 2	PCIe Gen3 x 4	PCIe Gen3 x 8	PCIe Gen3 x 8	PCIe Gen3 x 8
Supported Operating Systems	QTS		QTS; Windows; Linux					QTS; Windows; Linux		
Bracket	Low-profile bracket pre-installed; full-height and specialized (for selected QNAP NAS) brackets are included									
Port and Cable	RJ45; over CAT 5 class cable recommended	RJ45; over CAT 6 class cable recommended			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						
Model	QDA-A2AR	QDA-A2MAR	QDA-SA	QDA-SA2	QDA-SA3	QDA-UMP	QDA-U2MP
							
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	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
Supported Drives	2 x 2.5-inch SATA 6Gbps HDD/SSD (up to 9.5 mm in height)	2 x M.2 2280 SATA 6 Gbps SSD	1 x 3.5-inch/2.5-inch SATA 6Gbps HDD/SSD	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
Host Interface	SATA 6Gbps	SATA 6Gbps	SAS 6Gbps	SAS 6Gbps	SAS 6Gbps	U.2 (SFF-8639) PCIe NVMe 3.0 x4	U.2 (SFF-8639) PCIe NVMe 3.0 x4
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	Dual-controller Servers ES1640dc v2 ES1686dc EJ1600 v2	ES2486dc	PC & NAS	PC & NAS




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


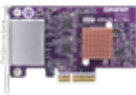
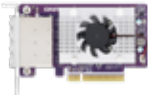


Mustang-F100	
Model	Mustang-F100-A10-R10
	
Interface	PCIe Gen3 x 8
Main FPGA	Intel® Arria® 10 GX1150 FPGA
Operating Systems	PC: Ubuntu 16.04.3 LTS 64-bit, CentOS 7.4 64-bit, Windows 10 (More OS are coming soon) NAS: QTS (Installing "Mustang Card User Driver" in the QTS App Center is required.)
Memory	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

Mustang-V100	
Model	Mustang-V100-MX8-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 × 528 × 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

QSW Series				
Model	QSW-1208-8C	QSW-804-4C	QSW-308S	QSW-308-1C
				
10G SFP+ (fiber) ports	4		3	2
10G SFP+ (fiber) and RJ-45 (copper) ports (combo)	8	4	---	1
Switching capacity	240 Gbps	160 Gbps	76Gbps	76Gbps
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
Dimensions (H x W x D) mm	43 x 285 x 233 mm		42.5 × 290 × 127 mm	42.5 × 290 × 127 mm
Weight (kg)	2.15	2.1	1.16 kg	1.19 kg
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 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet

QNA Series			
Model	QNA-T310G1T	QNA-T310G1S	QNA-UC5G1T
			
IC	AQC107S	AQC100S	AQC111U
Interface	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
Data Transfer	10Gbps; 5Gbps; 2.5Gbps; 1Gbps; 100Mbps	10Gbps	5Gbps; 2.5Gbps; 1Gbps; 100Mbps
Cables	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
System Requirements	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
Dimensions (H x W x D) mm	27.6 x 56 x 112 mm	27.6 x 56 x 113.2 mm	99.8 x 28 x 27.85 mm
Weight (kg)	0.19	0.16	0.11

	QXP Series			Storage Expansion Card	USB Expansion Card
Model	QXP-400eS	QXP-800eS	QXP-1600eS	SAS-12G2E	USB-U31A2P01
					
Connector	1 x SFF-8088 port	2 x SFF-8088 port	4 x SFF-8644 port	2 x wide port	2 x USB 3.1 Gen2 Type-A port
Interface	PCIe Gen3 x 2	PCIe Gen3 x 4	PCIe Gen3 x 8	PCIe Gen3 x 8	PCIe Gen2 x 2
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-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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