


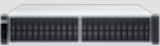


COMPUTING NETWORKING STORAGE

■ 威聯通 NAS 全系列選購指南

QNAP 產品系列


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

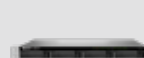

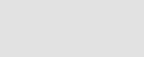













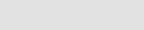











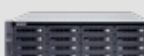

TVS-EC1680U-SAS-RP R2

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


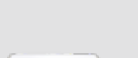



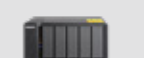























TS-453BT3

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




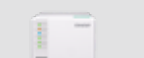
TS-431KX

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

企業

高效能、統一與分層儲存解決方案，最能滿足大數據儲存需求，其具備 10GbE 相容性可實現新世代網路，更有多種虛擬化解決方案促進大型企業壯大規模、增強實力。



運用統一分層儲存，效率得到充分利用

QNAP 的 SAS 型 Turbo NAS 機型採用最高規格的硬體，其分層儲存架構可以讓儲存空間得到充分利用。您可以靈活運用這個儲存系統，將 SAS HDD/SSD 分配給亟需高度效能的應用使用，而 SATA HDD 則用作大容量儲存裝置。依不同的資料使用，將不同的分層設定到單一 NAS 上的硬碟，可為企業帶來最佳的統一分層儲存解決方案。



極大化 IT 效能，將資源最佳化

QNAP 提供強大、可靠且可以擴充的 NAS 解決方案，能滿足資料備份、跨平台檔案分享、虛擬化等應用的需求。SSD 快取可改善對 IOPS 要求高的應用（如虛擬化）的 I/O 效能和工作流程。利用 IT Management Station，IT 管理者可以輕鬆管理多 OS 與多站點 IT 資產、資源和應用。



確保企業營運不中斷

QNAP 的企業儲存設備支援 10GbE/40GbE 網路、VMware®、Citrix® 及 Microsoft® 虛擬化解決方案、彈性擴充儲存空間，以及高階資料保護功能，如 AES-256 以磁碟區為基礎的加密和存取加密。



垂直擴充解決方案

QNAP 儲存擴充設備是高效率、高度可擴充的解決方案，可用於擴增 NAS 的總容量。企業可以在最初設置時購買所需的儲存空間，之後可因應需要，隨時調整儲存空間以配合需求，讓儲存投資最佳化。



虛擬 JBOD

VJBOD（虛擬 JBOD）是一種容量擴充技術，可將 QNAP NAS 的剩餘儲存資源用於擴充另一部 QNAP NAS 的儲存空間，這項技術不僅讓您可以在本機 NAS 上建立虛擬儲存池和磁碟區，還可以促成環境中的多部 QNAP NAS 得到儲存空間的最大利用。



■ 企業伺服器：

ES2486dc, ES1686dc, ES1640dc v2

■ 高端：

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

■ 儲存擴充設備

REXP series:

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

EJ Series:

EJ1600 v2

SMB

藉由簡化管理、跨平台檔案分享、全方位的備份解決方案、集中帳戶管理以及 RAID 防護，提升經營效率。

⚙️ 激勵合作

一個企業的成功與否，取決關鍵在於分享資訊無礙及有效管理知識。Turbo NAS 實現了高效能的跨平台檔案分享，讓用戶端間與裝置間的檔案更加方便。這款 NAS 產品支援 SMB/CIFS、AFP 和 NFS，能在不同作業系統的電腦之間無縫分享檔案，不用擔心相容性的問題。

🕒 備份及擷取資料隨心所欲

這款 NAS 擁有大儲存容量和優異的傳輸速度，是作為全功能備份中心的理想選擇。儲存在 NAS 上的資料可以備份到外部儲存裝置、遠端伺服器及各種第三方雲端備份服務，為資料提供多一層安全保護。

🔒 保護企業資料，簡化帳戶管理

藉由 RAID 防護與各種安全設定，這款 NAS 提供了一個安全位置來存放極其關鍵的企業資料，並且支援資料夾存取控管、使用者專屬資料夾、Windows ACL、Windows AD 及 LDAP 目錄服務，可針對網路存取集中管理和認證帳號。

💾+ 靈活擴充儲存

QNAP 儲存擴充設備可以在您需要時，無縫擴充 Turbo NAS 的總儲存空間，您也可以將此儲存擴充設備用作經濟實惠的外部儲存設備，來備份連接的整台 NAS。



■ 高端

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

■ 中端

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

■ 儲存擴充設備

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



家庭與SOHO

對家庭 / SOHO 用戶來說，QNAP NAS 是完備整合了家庭備份與多媒體的解決方案。用戶可以毫不費力地備份、同步、管理、分享檔案，進行多媒體轉檔，還享有行動存取檔案的便利。



輕鬆同步與管理檔案

現代化的數位家庭有一大堆的照片、影片和音樂檔，分散儲存在不同的裝置上。QNAP 提供了一個收藏空間，家庭的每位成員可以將檔案存放在這裡，不但方便存取檔案，還可以在多台裝置之間同步檔案。使用 QNAP 的 QTS 作業系統，您很快就會發現，NAS 及多視窗設計在使用上有多麼簡單。



給全家最極致的多媒體娛樂享受

這款 QNAP NAS 提供豐富的多媒體應用功能，很適合作為家庭多媒體中心。您可以透過與 DLNA、AirPlay 及 Chromecast 相容的裝置，瀏覽相片、播放音樂和影片。您也可以使用 HD Station 並透過 HDMI 連接，在 HDTV 高畫質電視上觀賞收藏的影片。在客廳擺一台 QNAP NAS，打造個人家庭劇院從未如此簡單。



即時或離線 Full HD 影片轉檔

隨著高解析度的智慧手機和相機日益普及，影片解析度也隨之提高。解析度越高，檔案就越大，所以需要更大的頻寬進行串流播放。QNAP 獨家轉碼技術會將影片轉檔為適合分享和觀看的理想解析度，不但可以有效節省頻寬，也不會更動放在 QNAP NAS 上的原始檔案，在任何裝置都能得到最好的觀看體驗。



透過行動裝置存取和分享檔案

幾 TB 的相片、音樂、影片和文件，都能輕鬆帶著走！許多 iOS 版和 Android 版 App，都能讓您輕鬆管理、存取及分享存放在 NAS 上的檔案，包括：Qfile、Qmusic 和 Qvideo，使用 Qget 則可以管理下載任務。

QVR Pro 專用機

QVR Pro 專用機是適合中小企業的塔式網路監控服務裝置，支援高品質的即時影音監控，具備百萬像素的錄影以及多隻 IP 攝影機回放功能，以保護您的寶貴資產。



可透過設備本身 HDMI 輸出高清畫面，無需額外電腦的網路監控設備

QNAP 專用機可本機畫面直接輸出，降低您在建置監控環境中的總成本。即使沒有 PC，也可以配置 QVR Pro 專用機並執行監視任務，配置全高清（1920x1080）分辨率的無延遲即時影像監視。



充分釋放魚眼鏡頭的潛力

QVR Pro 專用機支援市場上所有標準魚眼鏡頭，並具有 Qdewarp 技術，可將原始圖像的變形失真部分轉換為正確的比例。QVR Pro 專用機可確保更高的監視性能及安全性，同時提供部署靈活性。



■ 中端

工作小組 / SOHO / 家庭

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

■ 入門級

SOHO / 家庭

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



QVR Pro 專用機和其他基於 NAS 的監控系統之間有什麼區別？

QVR Pro 專用機導入了“專用存儲空間”的概念，確保系統可完全保留存儲空間不會受到 NAS 上其他應用程式的影響。QVR Pro 專用機預先內建了攝影機授權，因此可以在沒有網路連線的情況下進行本地安裝，所有必需的應用程序已內建到專用機中。



強大的攝影機管理和支援

QVR Pro 專用機支援來自 150 多個品牌的數千種攝影機型號和各種影像格式，使您可以針對您的環境，快速購建不同監控解決方案。

■ 初階

VS-23xx series:

VS-2304, VS-2308

■ 中階




VS-43XX, VS-63XX series:








VS-4312, VS-4324, VS-6318, VS-6336

■ 高階










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>									
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		
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.							









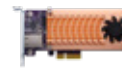
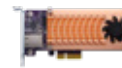
	TS-932X	TS-832X	HS-453DX	TBS-453DX	TS-351	TS-431KX	TS-431X3	TS-251D	TS-x53D Series		
Model	TS-932X	TS-832X	HS-453DX	TBS-453DX	TS-351	TS-431KX	TS-431X3	TS-251D	TS-253D	TS-453D	TS-653D
											
CPU	AnnapurnaLabs Alpine AL-324 Quad-core 1.7GHz	AnnapurnaLabs, Alpine AL-324 Quad-core 1.7GHz	Intel® Celeron® 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



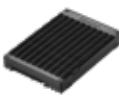
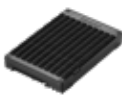
QVR Pro Appliance								
Model	VS-2304	VS-2308	VS-4312	VS-4324	VS-6318	VS-6336	VS-8324	VS-8348
								
CPU	Intel® Celeron® J1900	Intel® Celeron® J1900	Intel® Pentium G5400T	Intel® Pentium G5400T	Intel® Core™ i3-8100T	Intel® Core™ i3-8100T	Intel® Core™ i5-8400T	Intel® Core™ i5-8400T
Memory	8 GB RAM (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


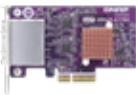
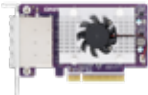


Mustang-F100	
Model	Mustang-F100-A10-R10
	
Interface	PCIe Gen3 x 8
Main FPGA	Intel® Arria® 10 GX1150 FPGA
Operating Systems	PC: Ubuntu 16.04.3 LTS 64-bit, CentOS 7.4 64-bit, Windows 10 (More OS are coming soon) NAS: QTS (Installing "Mustang Card User Driver" in the QTS App Center is required.)
Memory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