



COMPUTING NETWORKING STORAGE

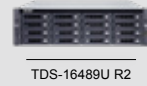
■ 威聯通 NAS 全系列選購指南

QNAP 產品系列

Primary Storage NAS | Dual Controller



Dual Processor NAS | Single Controller



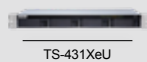
Enterprise



SMB



Workgroup/ SOHO/Home



Expansion Units



QVR Pro Appliance



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

高性能、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 以硬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。

保護企業資料，簡化帳戶管理

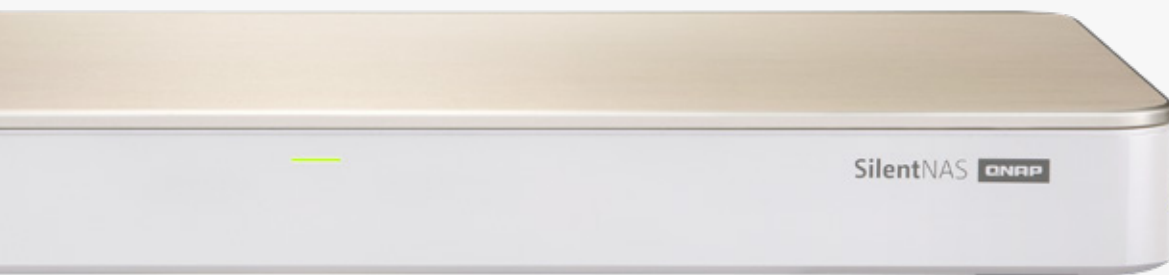
藉由 RAID 防護與各種安全設定，這款 NAS 提供了一個安全位置來存放極其關鍵的企業資料，並且支援資料夾存取控管、使用者專屬資料夾、Windows ACL、Windows AD 及 LDAP 目錄服務，可針對網路存取集中管理和認證帳號。

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。

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。



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。



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。



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。

■ 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

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。

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。

■ 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

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。

ESx86dc Series

ES2486dc		ES1686dc
Model		
		
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
Memory	48 GB DDR4 ECC (4 x 4 GB+4 x 8GB) per controller 64 GB DDR4 ECC (4 x 16 GB) per controller (Max 512 GB per controller)	32 GB DDR4 ECC (4 x 8GB) per controller 48 GB DDR4 ECC (4 x 4 GB+4 x 8GB) per controller 64 GB DDR4 ECC (4 x 16 GB) per controller (Max 512 GB per controller)
Drive Bay *	24 x 2.5-inch	16 x 3.5-inch
HDD Interface	SAS 12Gb/s, backward-compatible to SAS 6Gb/s	SAS 12Gb/s, backward-compatible to SAS 6Gb/s
SSD for C2F	1 per controller (64 GB)	1 per controller (64 GB)
HDD Hot Swappable	✓	✓
LAN Port	4 x 10GbE SFP+ for each controller	4 x 10GbE SFP+ for each controller
PCI-E Slot	Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x8	Slot 1: PCIe Gen 3 x8 Slot 2: 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
ODD Expansion Slot	---	---
HDMI	---	---
Dimensions (HxDxW) mm	88.3 x 483 x 545.1	132 x 483.05 x 630.62
Weight (kg)	27.41	25.83
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)
Power Supply	700W(x2), 90-264V	700W(x2), 90-264V
Max.# of IP Cameras (Supported QVR Pro)	---	---
Max. # of IP Cameras (Surveillance)	---	---
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.	

TDS-16489U R2

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

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

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

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



E5-2620 v4 8-core 2.1 GHz processor x2
E5-2630 v4 10-core 2.2 GHz processor x2

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

16 x 3.5-inch, 4 x 2.5-inch

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

✓

4 x 10GbE SFP+

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

4 / 0

130.8 × 444 × 744

22.42



4 x 6 cm


770W(x2), 100-240V






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

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

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

	TS-1886XU-RP		TES-x85U Series	
Model	TS-1886XU-RP		TES-1885U	
<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	
Memory	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 128 GB)		8 GB DDR4 ECC (1 x 8 GB) 16 GB DDR4 ECC (2 x 8 GB) (Max 128 GB)	
Drive Bay *	Front: 12 x 3.5-inch Rear: 6 x 2.5-inch		Front: 12 x 3.5-inch Rear: 6 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	
M.2 SSD	---		---	
HDD Hot Swappable	✓		✓	
LAN Port	2 x 10GbE SFP+ 4 x 1GbE		2 x 10GbE SFP+ 4 x 1GbE	
PCI-E Slot	4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or x4		4 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 2 x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x4 or PCIe Gen 3 x8	
Thunderbolt™	---		---	
USB 3.1	---		---	
USB 3.2 Gen 1 / USB 2.0	2 / 0		2 / 0	
ODD Expansion Slot	---		---	
HDMI	---		---	
Dimensions (HxWxD) mm	88.3 x 482 x 549.7		88 x 442.5 x 530.5	
Weight (kg)	12.73		15.34	
Fan	3 x 6 cm		4 x 6 cm	
Power Supply	550W(x2), 100-240V		450W(x2), 100-240V	
Max. # of IP Cameras (Supported QVR Pro)	Default: 8, Max.: 128 (optional license purchase)		Default 8, Max 128 (based on IP CAM setting)	
Max. # of IP Cameras (Surveillance)	Default 8, Max.: 80 (optional license purchase)		Default 8, Max.: 80 (optional license purchase)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.			

TVS-ECx80U-SAS-RP R2 Series				TS-2888X
TVS-EC2480U-SAS-RP R2	TVS-EC1680U-SAS-RP R2	TVS-EC1580MU-SAS-RP R2	TVS-EC1280U-SAS-RP R2	TS-2888X
				
Intel® Xeon® E3-1245 v3 3.4 GHz Quad-core Processor, E3-1246 v3 3.5 GHz Quad-core Processor or a compatible E3-1200 v3 family Processor				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)
8 GB DDR3 ECC (2 x 4 GB) 16 GB DDR3 (2 x 8 GB) (Max 32 GB)				32 GB DDR4 ECC (4 x 8 GB) 64 GB DDR4 ECC (4 x 16 GB) 128 GB DDR4 ECC (4 x 32 GB) 256 GB DDR4 ECC (8 x 32 GB) 512 GB DDR4 ECC (8 x 64 GB) (Max 512 GB)
24 x 3.5-inch	16 x 3.5-inch	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
SAS 12Gb/s & SATA 6Gb/s HDD / SSD				SATA 6Gb/s HDD / SSD U.2 PCIe Gen3 x4 NVMe SSD
---				---
✓				✓
2 x 10GbE SFP+ 4 x 1GbE				2 x 10GBASE-T 4 x 1GbE
2 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4				8 Slot 1: PCIe Gen 3 x8 or x4 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
---				---
---				---
4 / 4				6 / 4
---				---
1				---
176.15 x 442.5 x 530.5	130 x 442.5 x 530.5	88 x 442.5 x 530.5		612 x 374 x 448
23.08	18.3	14.18		31.46
4 x 8 cm		4 x 6 cm		1 x 9 cm 9 x 12 cm
650W(x2), 100-240V		450W(x2), 100-240V		2000W, 200-240Vac
Default 8, Max 128 (based on IP CAM setting)				Default 8, Max 128 (based on IP CAM setting)
Default: 8, Max.: 80 (optional license purchase)				Default: 8, Max.: 80 (optional license purchase)
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				



	TS-x83XU Series				
Model	TS-2483XU-RP	TS-1683XU-RP	TS-1283XU-RP	TS-983XU/TS-983XU-RP	TS-883XU/TS-883XU-RP
					
CPU	Intel® Xeon® E-2136 6-core 3.3 GHz processor	Intel® Xeon® E-2124 4-core 3.3 GHz processor			
Memory	16 GB DDR4 ECC (2 x 8 GB) (Max 64 GB)		8 GB DDR4 ECC (2 x 4 GB) (Max 64 GB)		
Drive Bay *	24 x 3.5-inch	16 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch, 5 x 2.5-inch	8 x 3.5-inch
HDD Interface	SATA 6Gb/s HDD / SSD				
M.2 SSD	---				
HDD Hot Swappable	✓				
LAN Port	2 x 10GbE SFP+ 4 x 1GbE			2 x 10GbE SFP+ 2 x 1GbE	2 x 10GbE SFP+ 4 x 1GbE
PCI-E Slot	5 Slot 1: PCIe Gen 2 x4 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	2 x Type-C, 4 x Type-A				
USB 3.2 Gen 1 / USB 2.0	---				
ODD Expansion Slot	---				
HDMI	---				
Dimensions (HxWxD) mm	176.15 x 481.04 x 672.02	130 x 481 x 573.5	88.3 x 482 x 562	43.3 x 482.6 x 484.15/43.3 x 482.6 x 507.54	88.3 x 482 x 562
Weight (kg)	20.67	13.76	11.75	7.48 / 8.63	10.39 / 10.99
Fan	4 x 9.2 cm		2 x 6 cm	3 x 4 cm	2 x 6 cm
Power Supply	800W(x2), 100-240V	500W(x2), 100-240V	300W(x2), 100-240V	250W / 300W(x2), 100-240V	350W / 300W(x2), 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)				
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)				
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				






TS-x77XU Series		
TS-2477XU-RP	TS-1677XU-RP	TS-1277XU-RP
		
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
8 GB DDR4 (1 x 8 GB) 16 GB DDR4 (2 x 8 GB) (Max 64 GB)	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) 16 GB DDR4 (2 x 8 GB) (Max 64 GB)	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 64GB)
24 x 3.5-inch	16 x 3.5-inch	12 x 3.5-inch
SATA 6Gb/s HDD / SSD		

✓		
2 x 10GbE SFP+ 2 x 1GbE		
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	

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

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

	TS-x77XU Series			
Model	TS-977XU-RP	TS-977XU	TS-877XU-RP	TS-877XU
				
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
Memory	4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 64 GB)	4 GB DDR4 (1 x 4 GB) (Max 64 GB)	8 GB DDR4 (2 x 4 GB) 4 GB DDR4 (1 x 4 GB) (Max 64GB)	4 GB DDR4 (1 x 4 GB) (Max 64GB)
Drive Bay *	4 x 3.5-inch, 5 x 2.5-inch		8 x 3.5-inch	
HDD Interface	SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD	
M.2 SSD	---		---	
HDD Hot Swappable	✓			
LAN Port	2 x 10GbE SFP+ 2 x 1GbE		2 x 10GbE SFP+ 2 x 1GbE	
PCI-E Slot	1 Slot 1: PCIe Gen 3 x16		4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or PCIe Gen 3 x4	
Thunderbolt™	---			
USB 3.2 Gen 2	1 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	43.3 × 482.6 × 505.54	43.3 × 482.6 × 484.15	88.3 x 482 x 562	
Weight (kg)	8.62	7.44	13.31	11.98
Fan	3 x 4 cm		2 x 7cm	
Power Supply	300W(x2), 100-240V	250W, 100-240V	300W (x2), 100-240V	350W, 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)			
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)			
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.			

TVS-x72XU Series				
TVS-2472XU-RP	TVS-1672XU-RP	TVS-1272XU-RP	TVS-972XU/ TVS-972XU-RP	TVS-872XU/ TVS-872XU-RP
				
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			
8 GB DDR4 (2 x 4 GB) (Max 64 GB)		4 GB DDR4 (1 x 4 GB) (Max 64 GB)		
24 x 3.5-inch	16 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch, 5 x 2.5-inch	8 x 3.5-inch
SATA 6Gb/s HDD / SSD				

✓				
2 x 10GbE SFP+ 4 x 1GbE		2 x 10GbE SFP+ 2 x 1GbE	2 x 10GbE SFP+ 4 x 1GbE	
5 Slot 1: PCIe Gen 2 x4 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

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

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

All specifications are subject to change without notice

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






	TS-x73U Series						TS-x63XU Series		
Model	TS-1673U-RP	TS-1673U	TS-1273U-RP	TS-1273U	TS-873U-RP	TS-873U	TS-1263XU TS-1263XU-RP	TS-863XU TS-863XU-RP	TS-463XU TS-463XU-RP
									
CPU	AMD R-Series RX-421ND quad-core 2.1 GHz processor, turbo core up to 3.4 GHz						AMD G-Series GX-420MC quad-core 2.0 GHz		
Memory	8 GB DDR4 (2 x 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)		
Drive Bay *	16 x 3.5-inch		12 x 3.5-inch		8 x 3.5-inch		12 x 3.5-inch	8 x 3.5-inch	4 x 3.5-inch
HDD Interface	SATA 6Gb/s HDD / SSD						SATA 6Gb/s HDD / SSD		
M.2 SSD	2 x M.2 2280 SATA 6Gb/s SSD						---		
HDD Hot Swappable	✓						✓		
LAN Port	2 x 10GbE SFP+ 4 x 1GbE						1 x 10GBASE-T 4 x 1GbE		
PCI-E Slot	1 (pre-installed with a dual-port 10GbE SFP+ LAN card) Slot 1: PCIe Gen 3 x4						1 Slot 1: PCIe Gen 2 x4		
Thunderbolt™	---						---		
USB 3.2 Gen 2	---						---		
USB 3.2 Gen 1 / USB 2.0	2 / 4						2 / 2		2 / 3
ODD Expansion Slot	---						---		
HDMI	---						---		
Dimensions (HxWxD) mm	130 x 481 x 536		89 x 482 x 534				89 x 482 x 534		44 x 439 x 499
Weight (kg)	15.01	14.25	11.98	10.75	11.3	9.85	16.14	11.02	7.58 / 9.3
Fan	4 x 9.2 cm		2 x 7 cm				2 x 7 cm		2 x 4 cm
Power Supply	500W(x2), 100-240V	350W, 100- 240V	300W(x2), 100-240V	350W, 100- 240V	250W(x2), 100 - 240V	250W, 100 - 240V	250W/300W(x2), 100-240V	250W/250W(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: 4, Max.: 72 (optional license purchase)						Default: 4, Max.: 40 (optional license purchase)		
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.								

TS-x32XU Series			QTS hero NAS Series		
TS-1232XU TS-1232XU-RP	TS-832XU TS-832XU-RP	TS-432XU TS-432XU-RP	TS-h1283XU-RP	TS-h1277XU-RP	TS-h977XU-RP
					
AnnapurnaLabs Alpine AL-324 ARMv8 Cortex-A57 quad-core 1.7GHz			Intel® Xeon® E-2236 6-core 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
4 GB DDR4 (1 x 4GB) (Max 16 GB)		2 GB DDR4 (1 x 2GB) (Max 16 GB)	32 GB DDR4 ECC (2 x 16 GB) 128 GB DDR4 ECC (4 x 32 GB) (Max 128 GB)	32 GB DDR4 (2 x 16 GB) 128 GB DDR4 (4 x 32 GB) (Max 128 GB)	32 GB DDR4 (2 x 16 GB) (Max 128 GB)
12 x 3.5-inch	8 x 3.5-inch	4 x 3.5-inch	12 x 3.5-inch	12 x 3.5-inch	4 x 3.5-inch, 5 x 2.5-inch
SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD		
---			---		
✓			✓		
2 x 10GbE SFP+ 2 x 1GbE			2 x 10GbE SFP+ 2 x 10GBASE-T 4 x 1GbE	2 x 10GbE SFP+ 2 x 10GBASE-T 2 x 1GbE	2 x 10GbE SFP+ 2 x 10GBASE-T 2 x 1GbE
1 Slot 1: PCIe Gen 2 x2			4 Slot 1: PCIe Gen 2 x4 Slot 2: PCIe Gen 3 x8 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x4	4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or x4 Slot 3: PCIe Gen 3 x4 Slot 4: PCIe Gen 3 x8 or x4	1 Slot 1: PCIe Gen 3 x16
---			---		
---			2 x Type-C, 4 x Type-A	1 x Type-C, 1 x Type-A	1 x Type-A
4 / 0			0 / 0	4 / 0	4 / 0
---			---		
---			---		
89 x 482 x 534		44 x 439 x 499	88.3 × 482 × 562	88.3 × 482 × 562	43.3 × 482.6 × 505.54
9.83 / 11.34	9.45 / 10.94	6.54 / 8.06	11.75	13.73	8.62
2 x 7 cm		2 x 4 cm	2 x 60mm	2 x 70mm	3 x 40mm
250W/250W(x2), 100-240V			300W(x2), 100-240V	300W(x2), 100-240V	300W(x2), 100-240V
Default 8, Max 128 (based on IP CAM setting)			Default: 8, Max.: 128 (optional license purchase)		
Default: 2, Max.: 24 (optional license purchase)			---		
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					



	TVS-1582TU		TS-451DeU		TS-x53BU Series	
Model	TVS-1582TU		TS-451DeU		TS-453BU TS-453BU-RP	TS-853BU TS-853BU-RP
						
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 2.0 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)
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
HDD Interface	SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD	
M.2 SSD	---		2 x M.2 2280 SATA 6Gb/s		---	
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	
PCI-E Slot	3 (pre-installed with two Thunderbolt™ 3 cards and a 10GbE network card) Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 Slot 3: PCIe Gen 3 x4		---		1 Slot 1: PCIe Gen 2 x2	
Thunderbolt™	4 x Thunderbolt™ 3		---		---	
USB 3.2 Gen 2	---		---		---	
USB 3.2 Gen 1 / USB 2.0	4 / 4		2 / 2		4 / 0	
ODD Expansion Slot	---		---		---	
HDMI	1		---		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
Weight (kg)	14.18		4.14		7.46 / 9.27	10.02 / 11.25
Fan	4 x 6 cm		3 x 4 cm		2 x 4 cm	2 x 7 cm
Power Supply	450W(x2), 100-240V		100W, 100-240V		250W/250W(x2), 100-240V	250W/250W(x2), 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)		Default: 8, Max.: 128 (optional license purchase)		Default: 8, Max.: 128 (optional license purchase)	
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)		Default: 4, Max.: 40 (optional license purchase)		Default: 4, Max.: 40 (optional license purchase)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					

	TS-431XeU	TVS-1282T3		TVS-882ST3	
TS-1253BU TS-1253BU-RP	TS-431XeU	TVS-1282T3		TVS-882ST3	
					
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)
4 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)
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	
SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD /SDD	
	---	2 x M.2 2242 / 2260 / 2280 / 22110 SATA 6Gb/s		---	
✓	✓	✓		✓	
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	
1 Slot 1: PCIe Gen 2 x2	---	3 (pre-installed with two Thunderbolt™ 3 cards and a 10GbE card) Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4		2 (pre-installed with a Thunderbolt™ 3 card and a 10GbE card) Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4	
---	---	4 x Thunderbolt™ 3		2 x Thunderbolt™ 3	
---	---	---		1 x Type-C, 1 x Type-A	
	4 / 0	5 / 0		2 / 0	
---	---	---		---	
1	---	3		1	
89 x 482 x 534	44 x 439 x 291	234.6 x 369.9 x 319.8		177 x 180 x 235	
10.41 / 11.64	4.15	11.55		3.65	
2 x 7 cm	3 x 4 cm	3 x 8 cm 2 x 9 cm		1 x 12 cm	
350W/250W(x2), 100-240V	100W, 100-240V	250W, 100V-240V		250W, 100V-240V	
Default: 8, Max.: 128 (optional license purchase)	---	Default 8, Max 128 (based on IP CAM setting)		Default 8, Max 128 (based on IP CAM setting)	
Default: 4, Max.: 40 (optional license purchase)	Default: 2, Max.: 30 (optional license purchase)	Default: 8, Max.: 80 (optional license purchase)		Default: 4, Max.: 72 (optional license purchase)	
	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				

	TVS-x72XT Series			TVS-882BRT3	
Model	TVS-872XT	TVS-672XT	TVS-472XT	TVS-882BRT3	
					
CPU	Intel® Core™ i5-8400T 6-core 1.7 GHz Processor, Max turbo to 3.3 GHz	Intel® Core™ i3-8100T 4-core 3.1 GHz Processor	Intel® Pentium G5400T 2-core 3.1 GHz Processor	Intel® Core™ i5-7500 quad-core 3.4 GHz (up to 3.8 GHz)	Intel® Core™ i7-7700 quad-core 3.6 GHz (up to 4.2 GHz)
Memory	16 GB DDR4 (2 x 8 GB) (Max 32 GB)	8 GB DDR4 (2 x 4 GB) (Max 32 GB)	4 GB DDR4 (2 x 2 GB) (Max 32 GB)	16 GB DDR4 (2 x 8 GB) (Max 64 GB)	32 GB DDR4 (4 x 8 GB) (Max 64 GB)
Drive Bay *	8 x 3.5-inch	6 x 3.5-inch	4 x 3.5-inch	8 x 3.5-inch	
HDD Interface	SATA 6Gb/s HDD/SSD			SATA 6Gb/s HDD / SSD	
M.2 SSD	2 x M.2 2280 PCIe Gen3 x2			2 x M.2 2242 / 2260 / 2280 / 22110 SATA 6Gb/s	
HDD Hot Swappable	✓			✓	
LAN Port	1 x 10GBASE-T 2 x 1GbE			4 x 1GbE Optional: 5GbE/10GbE network expansion card	
PCI-E Slot	2 Slot 1: PCIe Gen 3 x16 Slot 2: PCIe Gen 3 x4			3 (pre-installed with two dual port Thunderbolt™ 3 cards) Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4	
Thunderbolt™	2 x Thunderbolt™ 3			4 x Thunderbolt™ 3	
USB 3.2 Gen 2	2 x Type-C, 2 x Type-A			---	
USB 3.2 Gen 1 / USB 2.0	1 / 0			5 / 0	
ODD Expansion Slot	---			1 x 5.25" disc burner or 2 x Slim SATA disc burners * ODD skus come with preloaded Blu-ray ODD	
HDMI	1			3	
Dimensions (HxWxD) mm	188.2 × 329.3 × 279.6	188.2 × 264.3 × 279.6	188.2 × 199.3 × 279.6	234.6 x 369.9 x 319.8	
Weight (kg)	7.06	6.553	5.4	11.23	
Fan	1 x 12 cm 2 x 6 cm			3 x 8 cm 2 x 9 cm	
Power Supply	250W, 100-240V			250W, 100-240V	
Max. # of IP Cameras (Supported QVR Pro)	Default: 8, Max.: 128 (optional license purchase)			Default 8, Max 128 (based on IP CAM setting)	
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)			Default: 8, Max.: 80 (optional license purchase)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				

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

	TS-x77 Series			TVS-x73e Series		
Model	TS-1277	TS-877	TS-677	TVS-873e	TVS-673e	TVS-473e
						
CPU	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)		
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)		
Drive Bay *	8 x 3.5-inch, 4 x 2.5-inch	6 x 3.5-inch, 2 x 2.5-inch	4 x 3.5-inch, 2 x 2.5-inch	8 x 3.5-inch	6 x 3.5-inch	4 x 3.5-inch
HDD Interface	SATA 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		
HDD Hot Swappable	✓			✓		
LAN Port	4 x 1GbE Optional: 10GbE network expansion card			4 x 1GbE Optional: 5GbE/10GbE network expansion card		
PCI-E Slot	3 Slot 1: PCIe Gen 3 x8 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 2 x4			2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4		
Thunderbolt™	---			---		
USB 3.2 Gen 2	1 x Type-A, 1 x Type-C			---		
USB 3.2 Gen 1 / USB 2.0	6 / 0			4 / 0		
ODD Expansion Slot	---			---		
HDMI	---			2		
Dimensions (HxWxD) mm	234.6 x 369.9 x 319.8	231.9 x 292.8 x 319.8	231.9 x 224.9 x 319.8	188.2 x 329.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 199.3 x 279.6
Weight (kg)	11.27	8.86	7.7	6.56	5.63	4.9
Fan	3 x 8 cm 2 x 9 cm	2 x 8 cm 2 x 9 cm	1 x 8 cm 2 x 9 cm	2 x 12 cm 1 x 6 cm	2 x 9 cm 1 x 6 cm	1 x 12 cm 1 x 6 cm
Power Supply	550W, 100-240V	450W, 100-240V	250W, 100-240V	250W, 100-240V		
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 128 (based on IP CAM setting)			Default 8, Max 128 (based on IP CAM setting)		
Max. # of IP Cameras (Surveillance)	Default: 8, Max.: 80 (optional license purchase)			Default: 4, Max.: 72 (optional license purchase)		
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.					


TS-x73 Series			TVS-x72N Series		TS-x53Be Series		TS-1635AX
TS-873	TS-673	TS-473	TVS-672N	TVS-872N	TS-453Be	TS-253Be	TS-1635AX
							
AMD R-Series RX-421ND quad-core 2.1 GHz processor, Turbo Core up to 3.4 GHz			Intel® Core™ i3-8100T 4-core 3.1 GHz Processor	Intel® Core™ i3-8100T 4-core 3.1 GHz Processor	Intel® Celeron® J3455 quad-core 1.5 GHz (up to 2.3 GHz)		Marvell® ARMADA® 8040 ARMv8 Cortex-A72 quad-core 1.6 GHz
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)
8 x 3.5-inch	6 x 3.5-inch	4 x 3.5-inch	6 x 3.5-inch	8 x 3.5-inch	4 x 3.5-inch	2 x 3.5-inch	12 x 3.5-inch, 4 x 2.5-inch
SATA 6Gb/s HDD / SSD			SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD
2 x M.2 2260 / 2280 SATA 6Gb/s			2 x M.2 2280 PCIe Gen3 x 2		---		2 x M.2 2280 SATA 6Gb/s
✓			✓		✓		✓
4 x 1GbE Optional: 5GbE/10GbE network expansion card			1 x 5GbE 2 x 1GbE Optional: 10GbE network expansion card		2 x 1GbE Optional: 5GbE/10GbE network expansion card		2 x 10GbE SFP+ 2 x 1GbE
Slot 1: ² PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4			Slot 1: ² PCIe Gen 3 x16 Slot 2: PCIe Gen 3 x4		Slot 1: PCIe Gen 2 x2		Slot 1: ² PCIe Gen 3 x2 Slot 2: PCIe Gen 3 x1
---			---		---		---
---			2 x Type-C, 2 x Type-A		---		---
4 / 0			1 / 0		5 / 0		3 / 0
---			---		---		---
---			1		2		---
188.2 x 329.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 199.3 x 279.6	188.2 × 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
6.56	5.85	4.9	6.553	7.06	2.37	1.67	12.06
2 x 12 cm 1 x 6 cm	2 x 9 cm 1 x 6 cm	1 x 12 cm 1 x 6 cm	2 x 9.2 cm 2 x 6 cm	2 x 12 cm 2 x 6 cm	1x 12 cm	1 x 7 cm	3 x 9.2 cm 1 x 6 cm
250W, 100 - 240V			250W, 100-240V		AC adapter, 90W, 100 - 240V	AC adapter, 60W, 100 - 240V	250W, 100-240V
Default 8, Max 128 (based on IP CAM setting)			Default: 8, Max.: 128 (optional license purchase)		Default 8, Max 128 (based on IP CAM setting)		Default 8, Max 16 (based on IP CAM setting)
Default: 4, Max.: 72 (optional license purchase)			Default: 8, Max.: 80 (optional license purchase)		Default: 4, Max.: 40 (optional license purchase)		Default: 8, Max.: 40 (optional license purchase)
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.							

	TS-932X	TS-832X	HS-453DX	TBS-453DX	TS-351
Model	TS-932X	TS-832X	HS-453DX	TBS-453DX	TS-351
					
CPU	AnnapurnaLabs Alpine AL-324 Quad-core 1.7GHz	AnnapurnaLabs, Alpine AL-324 Quad-core 1.7GHz	Intel® Celeron® J4115 quad-core 1.8 GHz processor (burst up to 2.5GHz)	Intel® Celeron® J4115 quad-core 1.8 GHz processor (burst up to 2.5GHz)	Intel® Celeron® J1800 dual core 2.41 GHz processor
Memory	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)
Drive Bay *	5 x 3.5-inch, 4 x 2.5-inch	8 x 3.5-inch	2 x 3.5-inch	---	3 x 3.5-inch
HDD Interface	SATA 6 Gb/s HDD / SSD	SATA 6 Gb/s HDD / SSD	SATA 6Gb/s HDD / SSD	---	SATA 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
PCI-E Slot	---	2 Slot 1: PCIe Gen 2 x1 Slot 2: 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
ODD Expansion Slot	---	---	---	---	---
HDMI	---	---	2	1	1
Dimensions (HxWxD) mm	182 x 225 x 224	188.2 x 329.3 x 279.6	43.8 x 404 x 220	30 x 230 x 165	142 x 150 x 260.1
Weight (kg)	3.53	6.52	2.4	0.8	1.64
Fan	1 x 14cm	2 x 12 cm 1 x 6 cm	---	1 x Compact internal fan	1 x 9 cm
Power Supply	AC adapter, 120W, 100 - 240V	250W, 100-240V	AC adapter, 90W, 100-240V	AC adapter, 60W, 100-240V	AC adapter, 60W, 100-240V
Max. # of IP Cameras (Supported QVR Pro)	Default: 8, Max.: 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)
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.				

TS-431KX		TS-431X3		TS-251D		TS-x53D Series					
TS-431KX		TS-431X3		TS-251D		TS-253D		TS-453D		TS-653D	
											
AnnapurnaLabs Alpine AL-214 ARM® quad-core 1.7GHz processor		AnnapurnaLabs Alpine AL-314 ARM® quad-core 1.7GHz processor		Intel® Celeron® J4025 dual-core 2.0 GHz processor (burst up to 2.9 GHz)		Intel® Celeron® J4125 dual-core 2.0 GHz processor (burst up to 2.7 GHz)		Intel® Celeron® J4125 dual-core 2.0 GHz processor (burst up to 2.7 GHz)		Intel® Celeron® J4125 dual-core 2.0 GHz processor (burst up to 2.7 GHz)	
2 GB DDR3L (1 x 2 GB) (Max 8 GB)		2 GB DDR3L (1 x 2 GB) (Max 8 GB)		2 GB DDR4 (1 x 2 GB) 4 GB DDR4 (1 x 4 GB) (Max 8 GB)		4 GB DDR4 (1 x 4 GB) (Max 8 GB)		4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 8 GB)		4 GB DDR4 (1 x 4 GB) 8 GB DDR4 (2 x 4 GB) (Max 8 GB)	
4 x 3.5-inch		4 x 3.5-inch		2 x 3.5-inch		2 x 3.5-inch		4 x 3.5-inch		6 x 3.5-inch	
SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD		SATA 6Gb/s HDD / SSD					
---		---		---		---					
✓		✓		✓		✓					
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					
---		---		1 Slot 1: PCIe Gen 2 x4		1 Slot 1: PCIe Gen 2 x2					
---		---		---		---					
---		---		---		---					
3 / 0		3 / 0		2 / 3		2 / 3					
---		---		---		---					
---		---		1		1					
161 x 160 x 219		161 x 160 x 219		168 x 105 x 226		168 x 105 x 226		168 x 170 x 226		168 x 235 x 226	
2.03		2.03		1.48		1.67		2.37		3.02	
1 x 12cm		1 x 12cm		1 x 7 cm		1 x 7 cm		1 x 12 cm		2 x 9.2 cm	
AC adapter, 90W, 100 - 240V		AC adapter, 90W, 100 - 240V		AC adapter, 60W, 100 - 240V		AC adapter, 60W, 100 - 240V		AC adapter, 90W, 100 - 240V		AC adapter, 120W, 100 - 240V	
---		---		Default: 8, Max.: 128 (optional license purchase)		Default: 8, Max.: 128 (optional license purchase)					
Default: 2, Max.: 30 (optional license purchase)		Default: 2, Max.: 30 (optional license purchase)		Default: 2, Max.: 32 (optional license purchase)		Default: 4, Max.: 40 (optional license purchase)					
Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.											

All specifications are subject to change without notice


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

	TS-332X	TS-328	TS-x31P3 Series	
Model	TS-332X	TS-328	TS-231P3	TS-431P3
				
CPU	AnnapurnaLabs, an Amazon company Alpine AL-324 4-core 1.7GHz	Realtek RTD1296 quad-core 1.4 GHz processor	AnnapurnaLabs Alpine AL-314 ARM® quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL-314 ARM® quad-core 1.7GHz processor
Memory	4 GB DDR4 2400 (1 x 4 GB) 2 GB DDR4 2400 (1 x 2 GB) (Max 16GB)	2GB DDR4 on-board	1 GB DDR3L (1 x 1 GB) (Max 8 GB)	1 GB DDR3L (1 x 1 GB) (Max 8 GB)
Drive Bay [*]	3 x 3.5-inch	3 x 3.5-inch	2 x 3.5-inch	4 x 3.5-inch
HDD Interface	SATA 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	
PCI-E Slot	---	---	---	
Thunderbolt™	---	---	---	
USB 3.2 Gen 2	---	---	---	
USB 3.2 Gen 1 / USB 2.0	3 / 0	2 / 1	3 / 0	
ODD Expansion Slot	---	---	---	
HDMI	---	---	---	
Dimensions (HxWxD) mm	142 x 150 x 260.1	142 x 150 x 260.1	161 x 102 x 219	161 x 160 x 219
Weight (kg)	1.64	1.64	1.35	3
Fan	1 x 9 cm	1 x 9 cm	1 x 7cm	1 x 12cm
Power Supply	AC adapter, 90W, 100-240V	AC adapter, 60W, 100 - 240V	AC adapter, 60W, 100 - 240V	AC adapter, 90W, 100 - 240V
Max. # of IP Cameras (Supported QVR Pro)	Default 8, Max 16 (based on IP CAM setting)	Default 8, Max 16 (based on IP CAM setting)	---	
Max. # of IP Cameras (Surveillance)	Default: 2, Max.: 24 (optional license purchase)	Default: 2, Max.: 24 (optional license purchase)	Default: 2, Max.: 25 (optional license purchase)	
QNAP Expansion Enclosure	Check www.qnap.com/go/compatibility-expansion/ for expansion enclosure compatibility list.			




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





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

QVR Pro Appliance

Model	VS-2304	VS-2308	VS-4312	VS-4324
				
CPU	Intel® Celeron® J1900	Intel® Celeron® J1900	Intel® Pentium G5400T	Intel® Pentium G5400T
Memory	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)	8 GB RAM (2 x 4 GB)
Drive Bay	2 x 2.5",3.5"	2 x 2.5",3.5"	4 x 2.5",3.5"	4 x 2.5",3.5"
M.2 SSD	---	---	2 x 2280	2 x 2280
HDD Hot Swappable	✓	✓	✓	✓
10GbE LAN port	---	---	---	---
Gigabit LAN	2 x GbE RJ45	2 x GbE RJ45	2 x GbE RJ45	2 x GbE RJ45
PCI-E slot	---	---	1 x PCIe 3.0 x16, 1 x PCIe 3.0 x 4	1 x PCIe 3.0 x16, 1 x PCIe 3.0 x 4
Thunderbolt	---	---	---	---
USB 3.2 Gen 2	---	---	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 x 199.3 x 279.6	88.2 x 199.3 x 279.6
Weight (kg)	1.47	1.47	5.4	5.4
Fan	System: 1 x 70 mm, 12V DC smart fan	System: 1 x 70 mm, 12V DC smart fan	System: 1 x 120 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan	System: 1 x 120 mm, 12V DC smart fan CPU: 2 x 60mm, 12V DC smart fan
Power Supply	90W, 100-240V	90W, 100-240V	250W, 100-240V AC, 50/60 Hz	250W, 100-240V AC, 50/60 Hz
Embedded Camera Channel	4	8	12	24

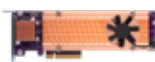
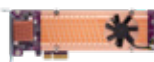

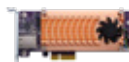

Expansion Units: REXP Series






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





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





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

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







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

	TR Series			TL USB Series	
Model	TR-004U	TR-004	TR-002	TL-D800C	TL-R1200C-RP
					
Host Interface	USB 3.2 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
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
Compatible Cable	One USB Type-C to Type-A connector cable is included.				
Dimensions (HxWxD) mm	44 x 439 x 291	168.5 x 160.2 x 219	169 x 102 x 219	188.2 X 329.3 X 281.4	88.6 X 482 X 562.5
Weight (kg)	4.03	1.85	1.37	6.18	11.03
Supported Operating Systems	QTS 4.3.6+; Windows 7+ and Windows Server 2012 R2+; macOS X 10.13+; Linux	QTS 4.3.6+; Windows 7+; macOS X 10.11+; Linux	QTS 4.3.6+; Windows 7+ and Windows Server 2012 R2+; macOS X 10.13+; Linux	QTS 4.4.2+/QTS hero h4.5.0+; Windows 8+ and Windows Server 2012 R2+; macOS X 10.13+; Ubuntu 18.04	

	Intel		Marvell	
Model	LAN-1G2T-I210	LAN-10G2T-X550	QXG-10G1T	QXG-10G2T-107
				
Controller	Intel Ethernet Controller I210	Intel X550	Aquantia AQtion AQC107	Aquantia AQtion AQC107S
Transmission Rates	1Gbps/100Mbps	10Gbps	10Gbps/5Gbps/2.5Gbps/1Gbps/100Mbps	
Connector	RJ45	NBASE-T (RJ45)	NBASE-T (RJ45)	
Interface	PCIe Gen2 x 1	PCIe Gen3 x 4	PCIe Gen3 x 4	PCIe Gen2 x 4
Supported Operating Systems	QTS		QTS;	
Bracket	Low-profile bracket pre-installed; full-height bracket optional			
Port and Cable	RJ45; over CAT 5 class cable recommended	RJ45; over CAT 6 class cable recommended		

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


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


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





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



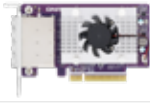

All specifications are subject to change without notice

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

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

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

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


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

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

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

USB Expansion Card	
USB-U31A2P01	
	
2 x USB 3.1 Gen2 Type-A port	
PCIe Gen2 x 2	

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

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

QNAP

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