

**Stay
one
step
ahead**

Product Selection Guide



QES-Betriebssystem

Das QES-Betriebssystem basiert auf dem einfachen und effizienten FreeBSD-Kernel und dem ZFS-Dateisystem, das sich seit Jahren als Jahrelange Erfahrung hat gezeigt, dass es am besten geeignet ist für High-End-Enterprise-Anwendungen geeignet ist.



Fokus auf Datenintegrität

QES nutzt seine End-to-End-Prüfsummen zur Erkennung und Korrektur von stillen Datenfehlern, die durch Hardwaredefekte, Fehler in der Firmware oder Metadatenfehler verursacht werden. Wenn eine Integritätsverletzung festgestellt wird, repariert QES den Schaden automatisch mit den Daten des anderen Spiegels, bevor die Daten an die Anwendungen weitergegeben werden.

Aktiv-Aktiv hoch Verfügbarkeit mit optimaler Speichereffizienz

Das QES-basierte ES-NAS wird von zwei Prozessoren angetrieben und verfügt über eine duale Active-Active-Controller-Architektur, die Unternehmen mit nahezu null Ausfallzeiten eine hohe Verfügbarkeit garantiert, da der Standby-Controller bei einem Ausfall eines Controllers schnell dessen Aufgaben übernehmen kann



Datendeduplizierung und -komprimierung

QES unterstützt die blockbasierte Datendeduplizierung zur Rückgewinnung von Speicherplatz, der durch redundante/wiederholte Daten belegt ist, sowie die Inline-Datenkomprimierung zur Verkleinerung von Dateien. Beide Funktionen optimieren die Speichernutzung und ermöglichen Kosteneinsparungen für Unternehmen bei der Verwendung von SSDs.



Aktiv-Aktiv-Dual-Controller-System

Beide Controller des ES NAS können Datenverkehr übertragen, zusammen mit dem Copy-To-Flash-Schutz gegen Stromausfälle und dem Dual-Path-SAS-Schnittstellendesign. Neben der Einsparung von Rechenressourcen wird über Kommunikationsprotokolle wie SMB, NFS und iSCSI auch ein schneller, unterbrechungsfreier und hochverfügbarer Speicherdienst bereitgestellt.

All-Flash-Speicher. Ultimative Leistung

Die All-Flash-Speicherlösungen von QNAP verfügen über ZFS-Datenumwandlung und SSD-Optimierungstechnologien zur Maximierung der SSD-Leistung und -Lebensdauer - perfekt, um Ihr Unternehmen agil und effizient zu halten!



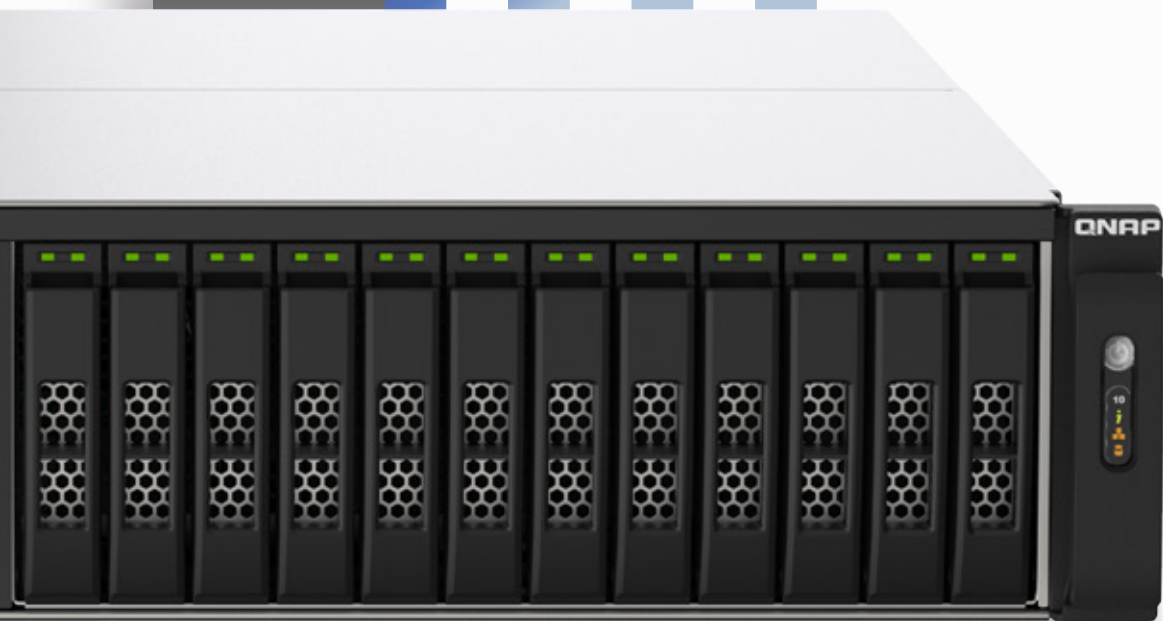
Flash-optimierter Speicher

Schreibverstärkung ist ein unerwünschter Effekt von SSDs, der die Leistung und Ausdauer des Flash-Speichers in Frage stellt. QNAPs exklusiver Write Coalescing-Algorithmus wurde für die Flash-Optimierung entwickelt, indem er alle zufälligen Schreibvorgänge in sequenzielle Schreibvorgänge umwandelt und die E/A reduziert. Er erhöht nicht nur effektiv die zufällige Schreibleistung für All-Flash-Umgebungen, sondern kann auch die Lebensdauer von SSDs verlängern.



Qualität der Dienstleistung

Qualität der Dienstleistung hilft bei der Optimierung der Ressourcenzuweisung auf der Grundlage von E/A und Bandbreite für LUNs/freigegebene Ordner auf verschiedenen Serviceebenen. QoS bevorzugt die Leistung von geschäftskritischen Anwendungen, die gleichzeitig mit nicht-geschäftskritischen Anwendungen laufen, und reduziert Probleme mit "lauten Nachbarn".



Inline-Datenkomprimierung und -Verdichtung

Die Inline-Datenkomprimierung verkleinert die Dateigrößen, um die E/A-Last des Speichers zu verringern und die Leistung zu verbessern. Außerdem hilft sie bei der Optimierung der Speichernutzung bei SSD-Überbereitungen.



SSD TRIM

Während fast alle SSDs konstante Leistungseinbußen aufweisen, hilft TRIM, diese zu überwinden. SSD TRIM ermöglicht es dem System, nicht benötigte Datenblöcke zu löschen. Löschvorgänge werden während der Leerlaufzeiten des Systems verarbeitet, d. h. es muss nicht warten, bis neue Daten in den Block geschrieben werden.

Hohe Leistung ZFS-basiertes Betriebssystem mit höherer Zuverlässigkeit

QNAPs "QuTS hero"-Betriebssystem kombiniert das App-basierte QTS mit einem 128-Bit-ZFS-Dateisystem, um flexibles Speichermanagement, umfassenden Datenschutz und optimierte Leistung für die Anforderungen geschäftskritischer Anwendungen zu bieten.

ZFS

Effiziente Technologie zur Datenreduzierung

Die Inline-Datendeduplizierung ist blockbasiert und wird ausgeführt, bevor die Daten auf den Speicher geschrieben werden. Dadurch wird die Speichernutzung optimiert und die Anforderungen an die Speicherkapazität erheblich gesenkt. In Kombination mit Inline-Komprimierungs- und Inline-Verdichtungs-Technologien reduziert ZFS den Gesamtspeicherbedarf erheblich - besonders hilfreich für die Steigerung der SSD-Speichereffizienz, wenn sich stark wiederholende Daten oder große Dateien erzeugt werden.



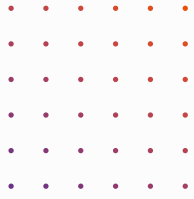
Nahezu grenzenlose, sofortige snapshots

ZFS unterstützt bis zu 65.535 Snapshots für iSCSI und freigegebene Ordner, um eine fundierte Versionierung der Snapshots zu erreichen. Wenn jede Stunde 1 Snapshot erstellt wird, also 24 Snapshots pro Tag, dann können bis zu 7 Jahre lang Snapshots erstellt werden, ohne dass einer gelöscht werden muss!



Bis zu einem Petabyte Kapazität pro gemeinsamem Ordner

Das 128-Bit-ZFS-Dateisystem hat ein enormes Kapazitätspotenzial und unterstützt die native Handhabung von Standard-RAID-Levels und zusätzlichen ZFS-RAID-Layouts (RAID Z). ZFS-basierte QNAP-Speicherlösungen bieten eine Kapazität von bis zu 1 PB für einzelne freigegebene Ordner und ermöglichen es Unternehmen, Anwendungen mit hohen Anforderungen zu bewältigen.



QUTS hero

QUTS hero



Echtzeit SnapSync

Das fortschrittliche blockbasierte Echtzeit-SnapSync stellt sicher, dass das primäre NAS und das sekundäre NAS immer dieselben Daten enthalten, und bietet somit die beste Unterstützung für einen unterbrechungsfreien Geschäftsbetrieb und hilft Anwendern, das Risiko eines Datenverlusts zu vermeiden!

Hochgeschwindigkeits 25GbE Vernetzung

Ermöglicht blitzschnellen Durchsatz für bandbreitenintensive Aufgaben wie Virtualisierung, massive Übertragung und schnelle Sicherung/Wiederherstellung



25GbE-fähiges All-Flash-NAS

Das TS-h3088XU-RP bietet eine integrierte Dual-Port 25GbE SFP28 SmartNIC mit dem NVIDIA Mellanox ConnectX-4 Lx Smart NIC-Controller, der iSCSI Extensions for RDMA (iSER) unterstützt, um die Leistung der Datenübertragung zwischen NAS und ESXi-Server zu erhöhen und CPU-Arbeitslasten zu entlasten



Preiswerter 25GbE managed Switch

Der QSW-M5216-1T ist ein 25-GbE-Layer-2-Web-Managed-Switch, der flexible Netzwerkschnittstellen für hohe Kompatibilität zu einem erschwinglichen Preis bietet und es kleinen Unternehmen ermöglicht, durch Integration in die bestehende Netzwerkinfrastruktur schnell auf ein Ultra-High-Speed-Backbone-Netzwerk aufzurüsten.

10GbE-Konnektivität: Die Zukunft ist jetzt!

10GbE-Konnektivität verbessert die allgemeine Netzwerkleistung und alltägliche Aufgaben mit der zehnfachen Bandbreite von 1GbE. Mit dem Angebot an 10GbE-fähigen NAS, Netzwerkadaptern und Switches bietet QNAP alles aus einer Hand, was Sie zur Schaffung Ihrer eigenen 10GbE-Umgebung benötigen.



10GbE NAS Lösungen

QNAP bietet eine Reihe von NAS mit integrierten Hardware- und Softwarelösungen, die die unglaubliche Bandbreite von 10GbE-Netzwerken optimal nutzen können.



10GbE switches

QNAP's QSW Serie

10GbE-Switches unterstützen die Standards

10GBASE-T und NBASE-T, so dass Sie mit vorhandenen Cat 5e- und 6a-Kabeln die Vorteile höherer Geschwindigkeiten nutzen können. Es sind sowohl SFP+- (Glasfaser) als auch RJ45- (Kupfer) Anschlüsse verfügbar, um eine Reihe von Netzwerkanforderungen zu erfüllen.

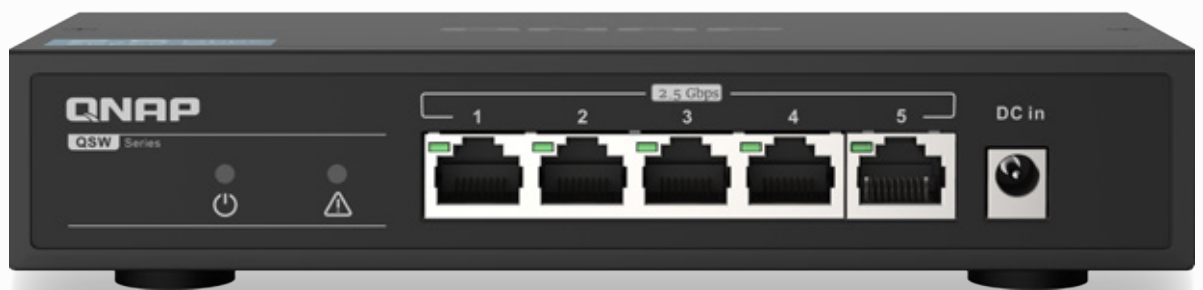


10GbE Netzwerk Adapter

QNAP bietet 10GbE-PCIe-Erweiterungskarten und Thunderbolt-zu-10GbE-Adapter, um Geräte mit 10GbE-Konnektivität auszustatten. Die QM2-Erweiterungskarte bietet nicht nur 10GbE-Konnektivität, sondern ermöglicht auch das Hinzufügen von M.2-SSDs zu Ihrem Workstation oder NAS.

2.5GbE ist nicht nur für das Büro geeignet, sondern auch für Ihr Zuhause

Das Fehlen von Switches für Endverbraucher hat es Heim- und Privatanwendern schwer gemacht, 2,5GbE/5GbE-Netzwerke zu übernehmen. QNAP bietet jetzt kostengünstige Multi-Port-Switches an, die 10G/5G/2.5G/1G/100M-Ethernet unterstützen und Ihnen helfen, Ihr Heimnetzwerk zu einem günstigen Preis zu transformieren.



2.5GbE switches

QNAP bietet eine 10GbE-Switch-Serie mit fünf Geschwindigkeiten (10G / 5G / 2,5G / 1G / 100M) und eine 2,5GbE-Switch-Serie. Mit 2.5GbE-Ports kann der QNAP-Switch Ihr Netzwerk sofort aufrüsten, um die Vorteile von 2.5GbE-fähigen Geräten und NAS zu nutzen.



Funktioniert mit vorhandenen Kabeln

Um die Vorteile von 2.5GbE zu nutzen, sind keine speziellen Kabel oder Anschlüsse erforderlich. Verwenden Sie einfach Ihre vorhandenen CAT5e-Kabel wie gewohnt mit Ihrer neuen 2.5GbE-Infrastruktur.



2.5 mal schneller

2,5GbE ist 2,5 Mal schneller als Standard-Ethernet (1GbE) und steigert die Netzwerkleistung zur Steigerung der Produktivität.



Günstiger

Wenn Sie sich eine 10GbE-Erweiterung derzeit nicht leisten können, bietet das erschwinglichere 2,5GbE eine deutliche Verbesserung gegenüber den aktuellen Ethernet-Geschwindigkeiten.



Durchschlagende Leistung und hervorragende Konnektivität mit Thunderbolt NAS



QNAP bietet mit dem Thunderbolt-NAS das Beste an Konnektivität. Thunderbolt NAS ist weit überlegen, da es sowohl die beste Geschwindigkeit als auch Vielseitigkeit bietet, die ein Nicht-Thunderbolt NAS nicht bieten kann. Videoproduktionsprofis, die QNAP Thunderbolt NAS verwenden, genießen effiziente Arbeitsabläufe, beispiellose Geschwindigkeit und unglaubliche Vielseitigkeit.



Ultra-Hochgeschwindigkeitsübertragung

Bearbeiten Sie direkt von Ihrem NAS mit blitzschneller Thunderbolt 3-Konnektivität. Mit potenziellen Geschwindigkeiten von bis zu 40 Gbit/s können Sie Ihre kompatiblen Macs und andere Thunderbolt 3-Geräte direkt an das NAS anschließen und unbeeinflusst von anderem Netzwerkverkehr arbeiten.



Vereinfachung von 10GbE-Workflows mit Thunderbolt-to-Ethernet

Der innovative T2E-Konverter überbrückt Thunderbolt- und Ethernet-Netzwerke und ermöglicht es Thunderbolt-fähigen Computern, sich über ihre Thunderbolt-Verbindung zum QNAP Thunderbolt NAS mit diesen Netzwerken zu verbinden. Dadurch wird ein 10GbE-Anschluss eingespart und der Bedarf an zusätzlichen Adaptern oder Netzwerkkarten entfällt.

Hohe Verfügbarkeit mit USB Typ-C

Die Verwendung von USB Typ-C durch Thunderbolt 3 bietet eine universelle Verbindung von QNAP NAS zu Thunderbolt-Geräten sowie unzähligen USB Typ-C-Geräten über ein einziges Kabel, was die gemeinsame Nutzung von Dateien und die zentrale Datenspeicherung ohne lästiges Verlegen mehrerer Kabel ermöglicht.

Station für die Zusammenarbeit für Mac und Windows

Die höhere Bandbreite von Thunderbolt 3 ermöglicht reibungslose Videobearbeitung und schnelleren Dateiaustausch für Fotografen, Videobearbeiter und Grafikdesigner. Bis zu 2 Thunderbolt-Geräte können an das QNAP Thunderbolt NAS angeschlossen werden, um Foto- und Audibearbeitung in Echtzeit ohne Beeinträchtigung der Systemleistung zu verarbeiten.



Erstellen Sie ganz einfach Ihre persönliche Cloud und Zugriff von überall



Im Gegensatz zu dem begrenzten Speicherplatz und den potenziellen Sicherheitsproblemen bei öffentlichen Cloud-Diensten ist das QNAP NAS vorteilhaft für die Einrichtung einer sicheren und großvolumigen persönlichen Cloud.





Eine einfach zu bedienende All-in-One-Backup-Lösung

Das QNAP NAS kann viele Dinge, aber sein Herzstück ist eine komplette Sicherungslösung zum Schutz Ihrer Dateien und Daten. Durch regelmäßiges Sichern Ihrer Dateien und Geräteinhalte können Sie Datenverluste der Vergangenheit angehören lassen.



Mehr Multimedia-Genuss

Das QNAP NAS ist mit einer Vielzahl von Medienanwendungen ausgestattet, darunter Photo Station, Video Station und Music Station, mit denen Sie Ihre Mediendateien ganz einfach verwalten und ansehen können.



Einfache und sichere Fernverbindung mit myQNAPcloud

myQNAPcloud ermöglicht es Ihnen, über einen eindeutigen Domännennamen mit Ihrem QNAP NAS verbunden zu bleiben. Es ist kein komplexes Routing oder eine Konfiguration erforderlich und myQNAPcloud stärkt SSL-Zertifikatsschlüssel auf 2048 Bit, um sicheren Fernzugriff, Verwaltung und Freigabe von Dateien zu ermöglichen und den Systemstatus von überall aus zu überprüfen.



Ein sicheres Backup-Center mit Snapshot-Schutz

Snapshots sind für den Schutz von NAS-Daten unverzichtbar, und ihre Funktion auf Blockebene macht sie zu einer zuverlässigen Datenschutzmethode angesichts der wachsenden Ransomware-Bedrohungen



Anschluss an einen Fernseher oder Monitor über HDMI

Mit dem HDMI-Ausgang ermöglicht Ihnen der QNAP NAS den direkten Genuss von Multimediainhalten, die Verwendung von Webbrowsern, die Verwaltung Ihres NAS oder die Betrachtung von aufgezeichnetem Überwachungsmaterial oder Live-Übertragungen auf Ihrem NAS.



Die nächste Generation intelligente IP Überwachung und Fernsicherung Lösung

Mit der abonnementbasierten intelligenten Überwachungslösung OVR Elite zahlen Sie nur für die Kanallizenzen, die Sie benötigen, so dass Sie Ihr Eigentum kostengünstig schützen können. Sie können einen dedizierten, unabhängigen Speicherplatz für Überwachungsdaten auf dem QNAP NAS einrichten und von einer vereinfachten Kameraverwaltung, Speicherplatzzuweisung, Kamera-Live-Anzeige und -Wiedergabe profitieren. Aufnahmen werden als MP4-Dateien zur Wiedergabe auf nahezu jedem Gerät gespeichert.



Direkte Überwachung auf einem HDMI-Display

Mit dem QVR Smart Client können Sie Aufnahmen ganz einfach über ein angeschlossenes HDMI-Display wiedergeben. Suchen Sie nach Ereignisaufzeichnungen innerhalb eines in der Benutzeroberfläche festgelegten Zeitraums und Erfassungsbereichs.



Nutzung von KI-basierten Anwendungen für Mehrwertdienste

Das Überwachungsmaterial von QVR Elite kann von mehreren KI-basierten Videoanalyseanwendungen von QNAP verarbeitet werden (z. B. QVR Fcae, QVR Human, QVR DoorAccess), um Ihre Überwachungssysteme mit intelligentem Türzugang, Gesichtserkennung, Personenzählung und mehr auszustatten.



QVR Pro Client: Zentralisierte Überwachung und Verwaltung

Mit QVR Pro Client können Sie mehrere Kanäle gleichzeitig überwachen. Wechseln Sie flexibel zwischen Live-Ansicht und Wiedergabemodus, um die zentrale Überwachung und Verwaltung zu vereinfachen.



Aufnahmen im MP4-Videoformat

QVR Elite nimmt Videodateien im universell unterstützten MP4-Format auf, das eine reibungslose Wiedergabe auf allen Ihren Geräten ermöglicht. Darüber hinaus können Sie Ihre Aufnahmen mit Hybrid Backup Sync oder HybridMount bequem auf einem anderen QTS/ QuTS hero NAS oder Cloud-Speicherplatz sichern.



Einfache Kapazitätserweiterung

Sie können mehrere Aufnahmebereiche für QVR Elite-Aufnahmen erstellen. Wenn Ihnen der Speicherplatz ausgeht, können Sie Ihren NAS-Speicher einfach erweitern, indem Sie ihn an QNAP-Erweiterungsschränke anschließen.



Niedrige Kosten: flexibler Abonnementplan

QVR Elite ist abonnementbasiert und bietet monatliche, jährliche und 3-Jahres-Abonnements. Sie können ein robustes Überwachungssystem zu einem günstigen monatlichen Preis von 1,99 US-Dollar pro Kanal aufbauen. Sie können das Abonnement nach Ihren Bedürfnissen anpassen, um eine höhere Kosteneffizienz zu erreichen.



QuWAN SD-WAN

Lösung für eine widerstandsfähige IT Infrastruktur

Die QuWAN SD-WAN-Lösung von QNAP bietet Auto Mesh VPN, IPsec-Verschlüsselung und ein zentrales Management. QuWAN ist mit einer Vielzahl von QNAP-Lösungen kompatibel und ermöglicht KMUs den effizienten Aufbau eines zuverlässigen Netzwerks zu einem kosteneffektiven Preis, um die digitale Transformation, die Expansion an mehreren Standorten und das Arbeiten an anderen Standorten zu erleichtern.



Auto mesh VPN

Baut automatisch ein Mesh-VPN auf und macht manuelle statische VPN-Einstellungen überflüssig.



Cloud Management

Der QuWAN Orchestrator bietet ein leistungsfähiges und komfortables zentrales Netzwerkmanagement.



Netzwerksicherheit

Verwendet Deep Packet Inspection zur Analyse von L7-Payloads auf Inhaltsinformationen von Websites und Geräten.



WAN Optimierung

QuWAN nutzt Lastausgleichstechnologien, um die Bandbreite verschiedener ISPs zu kombinieren und die Bandbreitennutzung zu priorisieren.



Kostenoptimierung

Optimiert die Glasfaser-/Netzwerkübertragung, um die Kosten für die VPN-Ausrüstung und die Bandbreitenausgaben zu senken.



Web GU

Bietet benutzerfreundliche Funktionen, darunter ein Dashboard, eMap, Verkehrsanalysen und mehr.

Genießen Sie eine hohe Abdeckung Mesh Wi-Fi Erfahrung



QMiro-201W und QMiroPuls-201W unterstützen die drahtlose Tri-Band-Wi-Fi 5-Übertragung und das Mesh-Wi-Fi-Handover und gewährleisten so stabile Wi-Fi-Verbindungen und eine bessere Signalqualität über ein Mesh-Wi-Fi-Netzwerk.



Verbinden Sie Ihr Zuhause mit flächendeckendem Tri-Band Mesh Wi-Fi

QMiro-201W/ QMiroPlus-201W nutzt die Wi-Fi-Handover-Technologie, mit der mehrere Benutzer automatisch mit dem Router mit dem stärksten Wi-Fi-Signal und einer einzigen SSID verbunden werden können. Der QMiro-201W / QMiroPlus-201W verfügt über eine Dualband-Frequenz (2,4 GHz / 5 GHz) und bietet eine dedizierte Mesh-5-GHz-Frequenz für Verbindungen mit hoher Bandbreite zwischen Mesh-Wi-Fi-Routern, die reibungslose und stabile Wi-Fi-Verbindungen garantieren.



Dediziertes Tri-Band Mesh Wi-Fi für reibungslose Verbindungen

Unterstützt Tri-Band-Wi-Fi von 2,4GHz, 5GHz und ein dediziertes Mesh-Wi-Fi 5GHz-Band für Verbindungen mit hoher Bandbreite zwischen Mesh-Wi-Fi-Routern. Im Gegensatz zu herkömmlichen Dual-Band-Routern, deren 5-GHz-Band zwischen Wi-Fi-Clients und Mesh-Wi-Fi-Routern geteilt werden muss, garantiert der QMiro-201W/ QMiroPlus-201W reibungslose und stabile Wi-Fi-Verbindungen.

Flexibel und wirtschaftlich Speichererweiterung

Direct-Attached Storage (DAS) erweitert Ihren PC um zusätzliche Speicherkapazität, indem es direkt über USB oder einen anderen Anschluss angeschlossen wird. Im Vergleich zu Network-Attached-Storage (NAS) kann DAS in der Regel an einen einzelnen PC angeschlossen werden und eignet sich für Benutzer, die lediglich die Speicherkapazität eines einzelnen PCs erweitern möchten und nicht die erweiterten Funktionen und die Netzwerkanbindung eines NAS benötigen.





RAID Unterstützung

QNAP DAS unterstützt verschiedene RAID-Levels zur Verbesserung der Leistung und des Datenschutzes.



Einfaches Interface

Der QNAP External RAID Manager hilft Ihnen bei der Überwachung des DAS-Systems, der Laufwerke und des Gesundheitszustands. Er sendet automatisch Warnungen an Ihren PC, wenn ein Fehler auftritt.



Für NAS Erweiterung

QNAP DAS kann entweder mit USB Type-C, SATA oder SAS für eine schnellere Datenübertragung verwendet werden und lässt sich mit QTS/ QuTS hero Storage & Snapshots einfach verwalten. Die TL-Serie ist für die NAS-Erweiterung geeignet.



Mühelose Einrichtung

Das DAS ist komplett steckerfertig und erfordert keine Netzwerkkonfiguration. Eine Auswurf-taste ist vorhanden, um das DAS schnell vom angeschlossenen Computer zu entfernen.



Für PC Erweiterung

QNAP DAS sind die ideale Wahl für PC-Benutzer, die ihren Speicherplatz erweitern möchten. Sie nutzen einen UBS Type-C-, SATA- oder SAS-Anschluss für eine schnellere Datenübertragung und unterstützen software- und hardwaregesteuerte RAID-Konfigurationen für eine flexible Speicherkonfiguration.



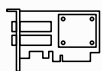
Vielseitiges, funktionsreiches Zubehör zur Verbesserung die Leistung Ihres Systems

QNAPs umfassendes Angebot an PCIe-Karten und -Zubehör ermöglicht es Anwendern, die Kernfunktionalität von NAS und PC zu erweitern, um unterschiedliche Anforderungen zu erfüllen und die Arbeitseffizienz und Produktivität zu maximieren.



Kabelgebundene Netzwerkadapter

- **QNA Serie Adapter:** Anschluss an Netzwerke mit höherer Geschwindigkeit über Thunderbolt 3 oder USB 3.0
- **QM2 Serie PCIe Karten:** Fügen Sie M.2 SSDs und Netzwerkanschlüsse zu Ihrem NAS hinzu.
- **Netzwerk-Erweiterungskarte:** Flexibles Hinzufügen von Netzwerkanschlüssen und Bandbreite zur die Leistung der Datenübertragung zu erhöhen



Interface-Karten

- **QXP SATA-Erweiterungskarte:** Erweitern Sie den Speicher eines PCs, Servers oder QNAP NAS mit einfacher Installation
- **Thunderbolt™ 3 Erweiterungskarte:** Verwandeln Sie Ihr NAS in ein Thunderbolt™ 3 NAS
- **M.2 E xpansion Card:** Fügen Sie M.2 S SDs zu Ihrem NAS und PC hinzu
- **USB-Erweiterungskarte:** Erhöhen Sie die USB-Übertragungsgeschwindigkeit mit einer USB-Erweiterungskarte
- **Fibre Channel Expansion Card:** Erweitern Sie Ihre bestehende Fibre Channel SAN-Umgebung zu einem erschwinglichen Preis



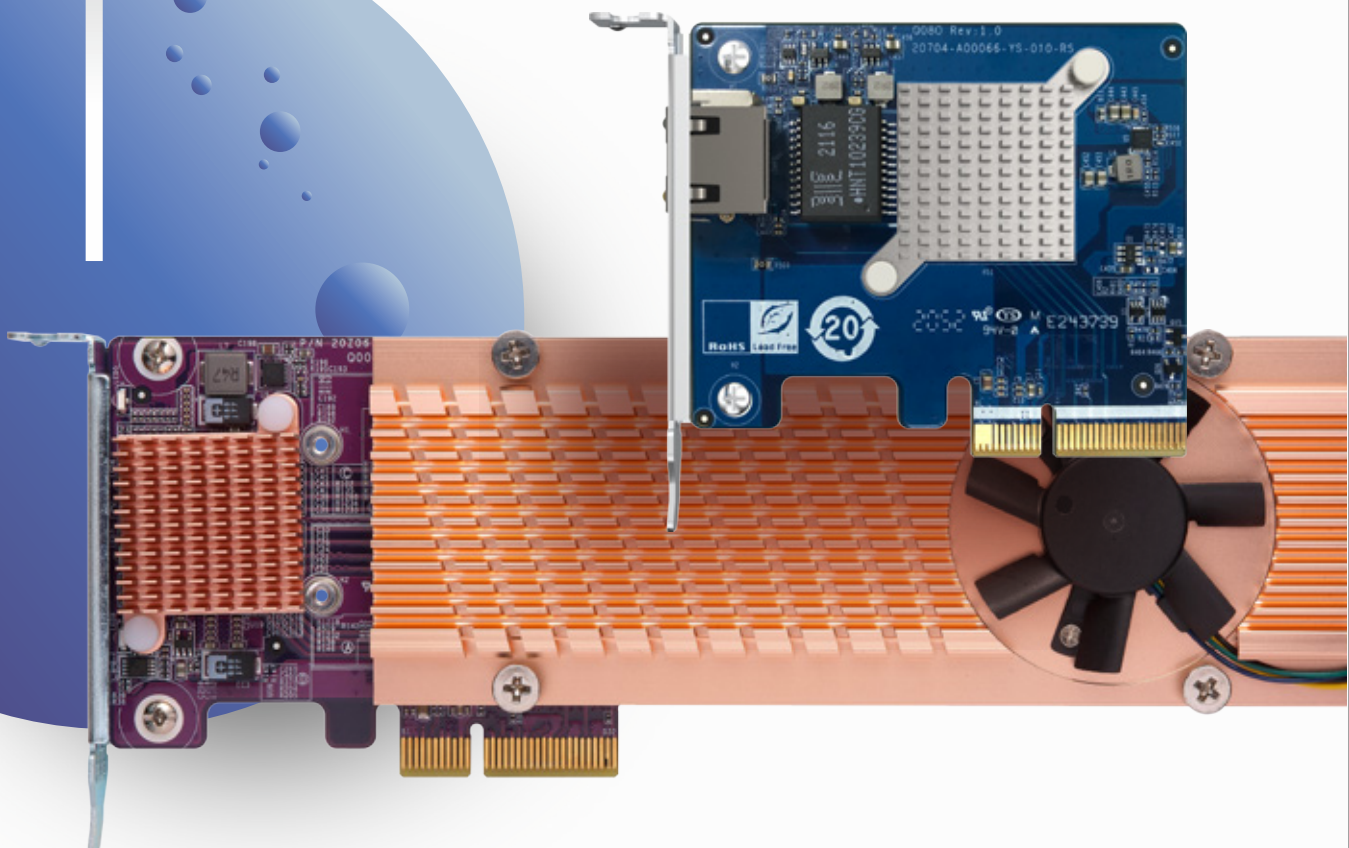
Computer-Beschleunigerkarten

- **Edge TPU Accelerator:** Erschwingliche Nutzung der KI-Beschleunigung für schnellere Bilderkennung auf Ihrem QNAP NAS
- **Computing Accelerator Card:** Erhöhte Leistung für die anspruchsvollen Arbeitsbelastungen

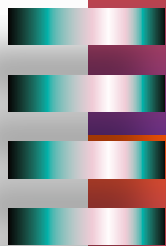


Drive Adapter

- 2.5-Zoll-6Gbps-SAS-auf-SA-TA-Laufwerk-Adapter
- Verwendung von zwei M.2 PCIe NVMe SSD in einem U.2 PCIe NVMe SSD-Laufwerksschacht für PC und NAS
- 6Gbit/s SATA SSD auf 3.5-Zoll-SAS-Laufwerksadapter
- Verwenden Sie eine M.2 PCIe NVMe SSD in einem U.2 PCIe NVMe SSD-Laufwerksschacht
- Verwendung von zwei 2.5-Zoll-SATA-Laufwerken in einem einzigen 3.5-Zoll-SATA-Laufwerksschacht mit RAID-Unterstützung
- Verwendung von zwei M.2 SATA SSDs in einem einzigen 2.5-Zoll-SATA-Laufwerksschacht mit RAID Unterstützung



Hohe Leistung
ZFS-basiertes
Betriebssystem mit
höherer Zuverlässigkeit



	ES1686dc			
				
Model	ES1686dc-2142IT-128G	ES1686dc-2142IT-96G	ES1686dc-2123IT-64G	
CPU	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	
CPU Architecture	64-bit x86			
Graphic Processors	-			
Floating Point Unit	Yes			
Encryption Engine	Yes (AES-NI)			
Hardware-beschleunigte Transkodierung	-			
System Memory	64 GB RDIMM DDR4 ECC (4 x 16 GB) per controller	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller	32 GB RDIMM DDR4 ECC (4x 8 GB) per controller	
Maximum Memory	512 GB (8 x 64GB)			
Memory Slot	8 x R-DIMM/LR-DIMM DDR4 WICHTIG: Sie können jeweils nur einen Typ von Dual In-Line-Speichermodul (DIMM) verwenden. Verwenden Sie keine registrierten DIMMs (RDIMMs) mit lastreduzierten DIMMs (LRDIMMs).			
Drive Bay	16 x 3.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s			
Hot-swappable	Yes			
M.2 Slot	-			
SSD-Cache-Beschleunigung Unterstützung	Yes Read cache only			
Gigabit Ethernet Port (RJ45)	3 for each controller (one for remote management)			
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-			
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-			
10 Gigabit Ethernet Port	4 x 10GbE SFP+ for each controller			
25 Gigabit Ethernet Port	-			
Thunderbolt Port	-			
PCIe Slot	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)			
USB 2.0 port	-			
USB 3.2 Gen 1 port	2 per each controller			
USB 3.2 Gen 2 (10Gbps) Port	-			
HDMI Output	-			
Form Factor	3U Rackmount			
Abmessungen (HxBxT)	132 x 483.05 x 630.62			
Gewicht (Netto)	25.83			
Betriebstemperatur	0 - 40 °C (32°F - 104°F)			
Power Supply Unit	Redundant/ Hot Swap Power Vin:90~264VAC;770W			
Power Consumption: Operating Mode, Typical	500.87 Tested with drives fully populated.			
Lüfter	Hot-swappable Lüfter module (60*60*38mm; 16000RPM/12v/2.8A x 3)			
Kensington Security Slot	-			

ES2486dc



ES2486dc-2142IT-128G	ES2486dc-2142IT-96G
Intel® Xeon® D-2142IT 8-core 1.90 GHz processor, up to 3.0 GHz	
64-bit x86	
-	
Yes	
Yes (AES-NI)	
-	
64 GB RDIMM DDR4 ECC (4 x 16 GB) per controller	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller
512 GB (8 x 64GB)	
8 x R-DIMM/LR-DIMM DDR4	
WICHTIG: Sie können jeweils nur einen Typ von Dual In-Line-Speichermodul (DIMM) verwenden. Verwenden Sie keine registrierten DIMMs (RDIMMs) mit lastreduzierten DIMMs (LRDIMMs).	
24 x 2.5-inch	
SAS 12Gb/s, backward-compatible to SAS 6Gb/s	
Yes	
-	
Yes Read cache only	
3 for each controller (one for remote management)	
-	
-	
4 x 10GbE SFP+ for each controller	
-	
-	
2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)	
-	
2 per each controller	
-	
-	
2U Rackmount	
88.3 x 483 x 545.1	
27.41	
0 - 40 °C (32°F - 104°F)	
Redundant/ Hot Swap Power Vin:90~264VAC;700W	
579.59 Tested with drives fully populated.	
Hot-swappable Lüfter module (60*60*38mm; 16000RPM/12v/2.8A x 3)	
-	

All-Flash-Speicher. Ultimative Leistung



TS-h3088XU-RP



Model	TS-h3088XU-RP-W1270-64G	TS-h3088XU-RP-W1250-32G
CPU	Intel® Xeon® W-1270 8-core/16-thread processor, up to 5.0 GHz	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz
CPU Architecture	64-bit x86	
Graphic Processors	-	
Floating Point Unit	Yes	
Encryption Engine	Yes (AES-NI)	
Hardware-beschleunigte Transkodierung	Yes	
System Memory	64 GB UDIMM DDR4 ECC (4 x 16 GB)	32 GB UDIMM DDR4 ECC (2 x 16 GB)
Maximum Memory	128 GB (4 x 32 GB)	
Memory Slot	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	
Drive Bay	Front: 24 x 2.5-inch SATA 6Gb/s, 3Gb/s Rear: 6 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Hot-swappable	Yes	
M.2 Slot	-	
SSD-Cache-Beschleunigung Unterstützung	Yes	
Gigabit Ethernet Port (RJ45)	-	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter	
10 Gigabit Ethernet Port	Optional via an adapter	
25 Gigabit Ethernet Port	2	
Thunderbolt Port	-	
PCIe Slot	3 Slot 1: PCIe Gen3 x8 or x4 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 25GbE network adapter. Please reserve this slot for the 25GbE adapter for the best performance. **Slot 1 provides the width of PCIe Gen3 x8 when Slot 2 is not in use, and provides the width of PCIe Gen3 x4 when Slot 2 is in use.	
USB 2.0 port	-	
USB 3.2 Gen 1 port	-	
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	
HDMI Output	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	
Form Factor	Rackmount	
Abmessungen (HxBxT)	88.3 x 481.07 x 515.02	
Gewicht (Netto)	12.26	
Betriebstemperatur	0 - 40°C (32°F - 104°F)	
Power Supply Unit	550W(x2), 100-240V	
Power Consumption: Operating Mode, Typical	261.81 Tested with drives fully populated.	
Lüfter	3 x 60mm, 12VDC	
Kensington Security Slot	-	



TS-h2490FU







TS-h2490FU	
TS-h2490FU-7302P-128G	TS-h2490FU-7232P-64G
AMD EPYC™ 7302P 16-core/32-thread processor, up to 3.3 GHz	AMD EPYC™ 7232P 8-core/16-thread processor, up to 3.2 GHz
64-bit x86	
-	
-	
Yes (AES-NI)	
-	
128 GB RDIMM DDR4 ECC (8 x 16 GB)	64 GB RDIMM DDR4 ECC (8 x 8 GB)
4 TB (16 x 256 GB)	
16 x Long-DIMM DDR4	
24 x 2.5-inch U.2 PCIe NVMe The system is shipped without SSD. For the SSD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Yes	
-	
Yes	
-	
2 (also support 10M)	
-	
-	
4 x 25GbE SFP28 SmartNIC port	2 x 25GbE SFP28 SmartNIC port
-	
5 Slot 1: PCIe Gen4 x4 Slot 2: PCIe Gen4 x8 or x4 Slot 3: PCIe Gen4 x4 Slot 4: PCIe Gen4 x8 Slot 5: PCIe Gen4 x16 or x8 *Slot 4 and Slot 5 are preinstalled with 25GbE network adapters. Please reserve these slots for the 25GbE adapters for the best performance. **Slot 2 provides the width of PCIe Gen4 x8 when Slot 3 is not in use, and provides the width of PCIe Gen4 x4 when Slot 3 is in use. ***Slot 5 provides the width of PCIe Gen4 x16 when Slot 4 is not in use, and provides the width of PCIe Gen4 x8 when Slot 4 is in use.	
-	
2	
-	
-	
Rackmount	
88.3 x 480.97 x 510.23	
15.2	
0 - 35°C (32°F - 95°F)	
1100W PSU(x2), 200-240Vac, Max Wattage: 1100W@200-240Vac 850W@100-240Vac	
277.64 Tested with drives fully populated.	
4 x 60mm, 12VDC	
-	



Hohe Leistung
ZFS-basiertes
Betriebssystem mit
höherer Zuverlässigkeit







	TS-h3088XU-RP		TS-h2490FU		
					
Model	TS-h3088XU-RP-W1270-64G	TS-h3088XU-RP-W1250-32G	TS-h2490FU-7302P-128G	TS-h2490FU-7232P-64G	
CPU	Intel® Xeon® W-1270 8-core/16-thread processor, up to 5.0 GHz		Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz		AMD EPYC™ 7302P 16-core/32-thread processor, up to 3.3 GHz
CPU Architecture	64-bit x86		64-bit x86		
Graphic Processors	-		-		
Floating Point Unit	Yes		-		
Encryption Engine	Yes (AES-NI)		Yes (AES-NI)		
Hardware-beschleunigte Transkodierung	Yes		-		
System Memory	64 GB UDIMM DDR4 ECC (4 x 16 GB)	32 GB UDIMM DDR4 ECC (2 x 16 GB)	128 GB RDIMM DDR4 ECC (8 x 16 GB)	64 GB RDIMM DDR4 ECC (8 x 8 GB)	
Maximum Memory	128 GB (4 x 32 GB)		4 TB (16 x 256 GB)		
Memory Slot	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.		16 x Long-DIMM DDR4		
Drive Bay	Front: 24 x 2.5-inch SATA 6Gb/s, 3Gb/s Rear: 6 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]		24 x 2.5-inch U.2 PCIe NVMe The system is shipped without SSD. For the SSD compatibility list, please visit [https://www.qnap.com/compatibility/]		
Hot-swappable	Yes		Yes		
M.2 Slot	-		-		
SSD-Cache-Beschleunigung Unterstützung	Yes		Yes		
Gigabit Ethernet Port (RJ45)	-		-		
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4		2 (also support 10M)		
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter		-		
10 Gigabit Ethernet Port	Optional via an adapter		-		
25 Gigabit Ethernet Port	2		4 x 25GbE SFP28 SmartNIC port	2 x 25GbE SFP28 SmartNIC port	
Thunderbolt Port	-		-		
PCIe Slot	3 Slot 1: PCIe Gen3 x8 or x4 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 25GbE network adapter. Please reserve this slot for the 25GbE adapter for the best performance. **Slot 1 provides the width of PCIe Gen3 x8 when Slot 2 is not in use, and provides the width of PCIe Gen3 x4 when Slot 2 is in use.		5 Slot 1: PCIe Gen4 x4 Slot 2: PCIe Gen4 x8 or x4 Slot 3: PCIe Gen4 x4 Slot 4: PCIe Gen4 x8 Slot 5: PCIe Gen4 x16 or x8 *Slot 4 and Slot 5 are preinstalled with 25GbE network adapters. Please reserve these slots for the 25GbE adapters for the best performance. **Slot 2 provides the width of PCIe Gen4 x8 when Slot 3 is not in use, and provides the width of PCIe Gen4 x4 when Slot 3 is in use. ***Slot 5 provides the width of PCIe Gen4 x16 when Slot 4 is not in use, and provides the width of PCIe Gen4 x8 when Slot 4 is in use.		
USB 2.0 port	-		-		
USB 3.2 Gen 1 port	-		2		
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps		-		
HDMI Output	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)		-		
Form Factor	Rackmount		Rackmount		
Abmessungen (HxBxT)	88.3 x 481.07 x 515.02		88.3 x 480.97 x 510.23		
Gewicht (Netto)	12.26		15.2		
Betriebstemperatur	0 - 40°C (32°F - 104°F)		0 - 35°C (32°F - 95°F)		
Power Supply Unit	550W(x2), 100-240V		*1100W PSU(x2), 200-240Vac, Max Wattage: 1100W@200-240Vac 850W@100-240Vac		
Power Consumption: Operating Mode, Typical	261.81 Tested with drives fully populated.		277.64 Tested with drives fully populated.		
Lüfter	3 x 60mm, 12VDC		4 x 60mm, 12VDC		
Kensington Security Slot	-		-		



TS-h1886XU-RP		TS-h686	
			
TS-h1886XU-RP-D1622-32G		TS-h686-D1602-8G	
Intel® Xeon® D-1622 4-core 2.60 GHz processor, up to 3.2 GHz		Intel® Xeon® D-1602 2-core/4-thread processor, up to 3.2 GHz	
64-bit x86		64-bit x86	
-		-	
Yes		Yes	
Yes (AES-NI)		Yes (AES-NI)	
-		Yes	
32 GB UDIMM DDR4 ECC (2 x 16GB)		8 GB UDIMM DDR4 ECC (2 x 4 GB)	
128 GB (4 x 32 GB)		128 GB (4 x 32 GB)	
4 x Long-DIMM DDR4		4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	
Front: 12 x 3.5-inch SATA 6Gb/s, 3Gb/s Rear: 6 x 2.5-inch SATA 6Gb/s, 3Gb/s		4 x 3.5-inch SATA 6Gb/s, 3Gb/s + 2 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Yes		Yes	
-		2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	
Yes		Yes	
4		-	
-		4 (also support 10M)	
-		Optional via an adapter	
2 x 10GbE SFP+ SmartNIC port Pre-installed with a 10GbE PCIe adapter		-	
-		Optional via an adapter	
-		-	
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 *Slot 4 is preinstalled with a 10GbE network adapter. **Slot 2 provides the width of PCIe Gen 3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 1 is in use. ***Slot 4 provides the width of PCIe Gen 3 x8 when Slot 3 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 3 is in use.		2 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x8	
-		-	
2		3	
-		-	
-		-	
Rackmount		Tower	
88.3 x 482 x 549.7		231.9 x 224.9 x 319.8	
12.73		7.27	
0 - 40 °C (32°F - 104°F)		0 - 40°C (32°F - 104°F)	
550W(x2), 100-240V		250W PSU, 100~240V	
117.92 Tested with drives fully populated.		61.115 Tested with drives fully populated.	
System Lüfter: 3 x 60mm, 12VDC		System Lüfter: 1 x 97mm, 12VDC CPU Lüfter: 1 x 90mm, 12VDC	
-		Yes	

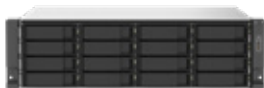

	TS-h886	TVS-h1288X	
			
Model	TS-h886-D1622-16G	TVS-h1288X-W1250-16G	
CPU	Intel® Xeon® D-1622 4-core/8-thread processor, up to 3.2 GHz	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz	
CPU Architecture	64-bit x86	64-bit x86	
Graphic Processors	-	Intel® UHD Graphics P630	
Floating Point Unit	Yes	Yes	
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)	
Hardware-beschleunigte Transkodierung	Yes	Yes	
System Memory	16 GB UDIMM DDR4 ECC (2 x 8 GB)	16 GB ECC UDIMM DDR4 (2 x 8 GB)	
Maximum Memory	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)	
Memory Slot	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	
Drive Bay	6 x 3.5-inch SATA 6Gb/s, 3Gb/s + 2 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	8 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Hot-swappable	Yes	Yes	
M.2 Slot	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes	
Gigabit Ethernet Port (RJ45)	-	-	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4 (also support 10M)	4 (also support 10M)	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter	Optional via an adapter	
10 Gigabit Ethernet Port	-	2 x 10GBASE-T (10G/1G)	
25 Gigabit Ethernet Port	Optional via an adapter	Optional via an adapter	
Thunderbolt Port	-	Optional via the QXP-T32P 2-port Thunderbolt 3 PCIe adapter	
PCIe Slot	2 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x8	3 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 2-port 10GbE network adapter.	
USB 2.0 port	-	-	
USB 3.2 Gen 1 port	3	-	
USB 3.2 Gen 2 (10Gbps) Port	-	2 x Type-C 3 x Type-A	
HDMI Output	-	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	
Form Factor	Tower	Tower	
Abmessungen (HxBxT)	231.9 x 292.9 x 319.8	234.6 x 369.9 x 319.8	
Gewicht (Netto)	8.5	11.27	
Betriebstemperatur	0 - 40°C (32°F - 104°F)	0 - 40°C (32°F - 104°F)	
Power Supply Unit	250W PSU, 100~240V	550W PSU, 100~240V	
Power Consumption: Operating Mode, Typical	75.79 Tested with drives fully populated.	97.492 Tested with drives fully populated.	
Lüfter	System Lüfter: 2 x 80mm, 12VDC CPU Lüfter: 1 x 90mm, 12VDC	System Lüfter: 3 x 80mm, 12VDC CPU Lüfter: 2 x 97mm, 12VDC	
Kensington Security Slot	Yes	Yes	



	TVS-h1688X	TS-h2483XU-RP
		
	TVS-h1688X-W1250-32G	TS-h2483XU-RP-E2236-128G
	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz	Intel® Xeon® E-2236 6-core 3.4 GHz processor (burst up to 4.8 GHz)
	64-bit x86	64-bit x86
	Intel® UHD Graphics P630	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Yes	-
	32GB ECC UDIMM DDR4 (2 x 16 GB)	128 GB UDIMM DDR4 ECC (4 x 32GB)
	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	4 x Long-DIMM DDR4
	12 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	24 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	-
	Yes	Yes
	-	4
	4 (also support 10M)	-
	Optional via an adapter	-
	2 x 10GBASE-T (10G/1G)	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port
	Optional via an adapter	-
	Optional via the QXP-T32P 2-port Thunderbolt 3 PCIe adapter	-
	3 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 2-port 10GbE network adapter.	5 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x4 (CPU) Slot 3: PCIe Gen 2 x4 (PCH) Slot 4: PCIe Gen 3 x8 (CPU) Slot 5: PCIe Gen 2 x4 (PCH) Slot 2 and slot 4 are preinstalled with 10GbE network adapters.
	-	-
	-	-
	2 x Type-C 4 x Type-A	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps
	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	-
	Tower	4U Rackmount
	303.84 x 369.89 x 319.8	176.15 x 481.04 x 672.02
	13.41	20.67
	0 - 40°C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	550W PSU, 100~240V	800W(x2), 100-240V
	108.67 Tested with drives fully populated.	168.97 Tested with drives fully populated.
	System Lüfter: 3 x 80mm, 12VDC CPU Lüfter: 2 x 97mm, 12VDC	System Lüfter: 3 x 80mm, 12VDC
	Yes	-



	TS-h1683XU-RP	TS-h1283XU-RP	
			
Model	TS-h1683XU-RP-E2236-128G	TS-h1283XU-RP-E2236-128G	TS-h1283XU-RP-E2236-32G
CPU	Intel® Xeon® E-2236 6-core 3.4 GHz processor (burst up to 4.8 GHz)		Intel® Xeon® E-2236 6-core/12-thread 3.4 GHz processor, up to 4.8 GHz
CPU Architecture	64-bit x86		64-bit x86
Graphic Processors	-		-
Floating Point Unit	Yes		Yes
Encryption Engine	Yes (AES-NI)		Yes (AES-NI)
Hardware- beschleunigte Transkodierung	-		-
System Memory	128 GB UDIMM DDR4 ECC (4 x 32GB)		128 GB UDIMM DDR4 ECC (4 x 32GB) 32 GB UDIMM DDR4 ECC (2 x 16GB)
Maximum Memory	128 GB (4 x 32 GB)		128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4		4 x Long-DIMM DDR4
Drive Bay	16 x 3.5-inch SATA 6Gb/s, 3Gb/s		12 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes		Yes
M.2 Slot	-		-
SSD-Cache- Beschleunigung Unterstützung	Yes		Yes
Gigabit Ethernet Port (RJ45)	4		4
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-		-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-		-
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port		2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port
25 Gigabit Ethernet Port	-		-
Thunderbolt Port	-		-
PCIe Slot	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 2 and slot 4 are preinstalled with 10GbE network adapters.		4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 3 and slot 4 are preinstalled with 10GbE network adapters
USB 2.0 port	-		-
USB 3.2 Gen 1 port	-		-
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps		2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	-		-
Form Factor	3U Rackmount		2U Rackmount
Abmessungen (HxBxT)	130 x 481 x 573.5		88.3 x 482 x 562
Gewicht (Netto)	13.76		11.75
Betriebstemperatur	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)
Power Supply Unit	500W(x2), 100-240V		500W(x2), 100-240V
Power Consumption: Operating Mode, Typical	149 Tested with WD10EFRX fully populated.		105.12 Tested with drives fully populated.
Lüfter	System Lüfter: 4 x 92mm, 12VDC		System Lüfter: 2 x 60mm, 12VDC
Kensington Security Slot	-		-

	TS-h2477XU-RP	TS-h1677XU-RP
		
	TS-h2477XU-RP-3700X-32G	TS-h1677XU-RP-3700X-32G
	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	32 GB UDIMM DDR4 (2 x 16GB)	32 GB UDIMM DDR4 (2 x 16GB)
	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
	24 x 3.5-inch SATA 6Gb/s, 3Gb/s	16 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	2	2
	-	-
	-	-
	2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+ SmartNIC port
	-	-
	-	-
	4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or PCIe Gen 3 x4* Slot 3: PCIe Gen 3 x8 or PCIe Gen 3 x4** Slot 4: PCIe Gen 3 x4 *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use. ***PCIe slot 4 is preinstalled with a 10GbE network adapter	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** *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use.
	-	-
	4	4
	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps
	-	-
	4U Rackmount	3U Rackmount
	176.15 x 481.04 x 672.02	130 x 481 x 573.5
	22.66	15.26
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	800W(x2), 100-240V	500W(x2), 100-240V
	143.97 Tested with drives fully populated.	136.45 Tested with drives fully populated.
	System Lüfter: 4 x 92mm, 12VDC	System Lüfter: 4 x 92mm, 12VDC
	-	-

	TS-h1277XU-RP		TS-h977XU-RP	
				
Model	TS-h1277XU-RP-3700X-128G	TS-h1277XU-RP-3700X-32G	TS-h977XU-RP-3700X-32G	
CPU	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz		AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz	
CPU Architecture	64-bit x86		64-bit x86	
Graphic Processors	-		-	
Floating Point Unit	Yes		-	
Encryption Engine	Yes (AES-NI)		Yes (AES-NI)	
Hardware-beschleunigte Transkodierung	-		-	
System Memory	128 GB UDIMM DDR4 (4 x 32GB)	32 GB UDIMM DDR4 (2 x 16GB)	32 GB UDIMM DDR4 (2 x 16GB)	
Maximum Memory	128 GB (4 x 32 GB)		128 GB (4 x 32 GB)	
Memory Slot	4 x Long-DIMM DDR4		4 x Long-DIMM DDR4	
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s		4 x 3.5-inch + 5 x 2.5-inch SATA 6Gb/s, 3Gb/s	
Hot-swappable	Yes		Yes	
M.2 Slot	-		-	
SSD-Cache-Beschleunigung Unterstützung	Yes		Yes	
Gigabit Ethernet Port (RJ45)	2		2	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-		-	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-		-	
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port		2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port	
25 Gigabit Ethernet Port	-		-	
Thunderbolt Port	-		-	
PCIe Slot	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** *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use. ***PCIe slot 4 is preinstalled with a 10GbE network adapter		1 Slot 1: PCIe Gen 3 x16 PCIe slot is preinstalled with a 10GbE network adapter	
USB 2.0 port	-		-	
USB 3.2 Gen 1 port	4		4	
USB 3.2 Gen 2 (10Gbps) Port	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps		1 x Type-A USB 3.2 Gen 2 10Gbps	
HDMI Output	-		-	
Form Factor	2U Rackmount		1U Rackmount	
Abmessungen (HxBxT)	88.3 x 482 x 562		43.3 x 482.6 x 505.54	
Gewicht (Netto)	13.73		8.62	
Betriebstemperatur	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	
Power Supply Unit	300W (x2), 100-240V		300W(x2), 100-240V	
Power Consumption: Operating Mode, Typical	106.66 Tested with drives fully populated.		76.43 Tested with drives fully populated.	
Lüfter	System Lüfter: 2 x 70mm, 12VDC		System Lüfter: 3 x 40mm, 12VDC	
Kensington Security Slot	-		-	

	TS-1673AU-RP	TS-1273AU-RP
		
	TS-1673AU-RP-16G	TS-1273AU-RP-8G
	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Optional via a PCIe graphics card	Optional via a PCIe graphics card
	16 GB UDIMM DDR4 (1 x 16 GB)	8 GB UDIMM DDR4 (1 x 8 GB)
	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.
	16 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	12 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
	Yes	Yes
	Optional via a QNAP QM2 PCIe card	Optional via a QNAP QM2 PCIe card
	Yes	Yes
	-	-
	2 (also support 10M)	2 (also support 10M)
	Optional via a network adapter	Optional via a network adapter
	Optional via a network adapter	Optional via a network adapter
	-	-
	-	-
	2 x PCIe Gen3 x4	2 x PCIe Gen3 x4
	-	-
	1 x Type-A	1 x Type-A
	2 x Type-C 1 x Type-A	2 x Type-C 1 x Type-A
	Optional via a PCIe graphics card	Optional via a PCIe graphics card
	3U Rackmount	2U Rackmount
	132 x 482 x 425	89 x 482 x 425
	12	9.69
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	550W (x2), 100-240V AC, 50-60Hz, 7-3.5A	300W (x2) PSU, 100 - 240V
	97.34 Tested fully populated with WD10EFRX hard drives.	78.92 Tested fully populated with WD10EFRX hard drives.
	3 x 80mm, 12VDC	2 x 80mm, 12VDC
	-	-

	TS-873AU-RP	TS-873AU
		
Model	TS-873AU-RP-4G	TS-873AU-4G
CPU	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Optional via a PCIe graphics card	Optional via a PCIe graphics card
System Memory	4 GB UDIMM DDR4 (1 x 4 GB)	4 GB UDIMM DDR4 (1 x 4 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.
Drive Bay	8 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	8 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	Yes	Yes
M.2 Slot	Optional via a QNAP QM2 PCIe card	Optional via a QNAP QM2 PCIe card
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	2 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a network adapter	Optional via a network adapter
10 Gigabit Ethernet Port	Optional via a network adapter	Optional via a network adapter
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 x PCIe Gen3 x4 (Units manufactured before 2021/01/09 are 1 x PCIe Gen3 x8 slot and can be upgraded to 2 x PCIe Gen3 x4 slots with the purchase of a BRKT-RISER-2P-2U adapter)	2 x PCIe Gen3 x4 (Units manufactured before 2021/01/09 are 1 x PCIe Gen3 x8 slot and can be upgraded to 2 x PCIe Gen3 x4 slots with the purchase of a BRKT-RISER-2P-2U adapter)
USB 2.0 port	-	-
USB 3.2 Gen 1 port	1 x Type-A	1 x Type-A
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C 1 x Type-A	2 x Type-C 1 x Type-A
HDMI Output	Optional via a PCIe graphics card	Optional via a PCIe graphics card
Form Factor	2U Rackmount	2U Rackmount
Abmessungen (HxBxT)	89 x 482 x 425	89 x 482 x 425
Gewicht (Netto)	9.15	8.04
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	300W PSU(x2), 100 - 240V	250W PSU, 100 - 240V
Power Consumption: Operating Mode, Typical	61.25 Tested fully populated with WD10EFRX hard drives.	55.01 Tested fully populated with WD10EFRX hard drives.
Lüfter	2 x 80mm, 12VDC	2 x 80mm, 12VDC
Kensington Security Slot	-	-

TS-h973AX			TS-873A		
					
TS-h973AX-32G		TS-h973AX-8G	TS-873A-8G		
AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor			AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor		
64-bit x86			64-bit x86		
-			Optional via a PCIe adapter		
Yes			Yes		
Yes (AES-NI)			Yes (AES-NI)		
-			Optional via a PCIe adapter		
32 GB SO-DIMM DDR4 (2 x 16 GB)		8 GB SO-DIMM DDR4 (1 x 8 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)		
64 GB (2 x 32 GB)			64 GB (2 x 32 GB)		
2 x SO-DIMM DDR4 Support optional ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.			2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.		
5 x 3.5-inch + 4 x 2.5-inch The system is shipped without HDD/SSD. For the HDD/SSD compatibility list, please visit [https://www.qnap.com/compatibility/]			8 x 3.5-inch SATA 6Gb/s, 3Gb/s		
Yes			^{**} Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.		
-			2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP](http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.		
Yes			Yes		
-			-		
2			2		
Optional via the QNA-UC5G1T USB to 5GbE network adapter			Optional via a PCIe adapter		
1 x 10GBASE-T (10G/5G/2.5G/1G/100M)			Optional via a PCIe adapter		
-			-		
-			-		
-			2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4		
-			-		
-			-		
1 x Type-C USB 3.2 Gen 2 3 x Type-A USB 3.2 Gen 2			3 x Type-A USB 3.2 Gen 2 10Gbps 1 x Type-C USB 3.2 Gen 1 5Gbps		
-			Optional via a PCIe adapter		
Tower			Tower		
182.65 x 224.6 x 224.1			188.2 x 329.3 x 280.8		
3.52			6.76		
0 - 40 °C (32°F - 104°F)			0 - 40 °C (32°F - 104°F)		
External, 120 W, AC 100 to 240 V			250W, 100-240V AC, 50-60Hz, 3.5A		
55.41 Tested with drives fully populated.			54.067 Tested with drives fully populated.		
1 x 140mm, 12VDC			System Lüfter: 2 x 120mm CPU Lüfter: 1 x 60mm		
Yes			Yes		

TS-673A





TS-473A





Model	TS-673A-8G	TS-473A-8G
CPU	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Optional via a PCIe adapter	Optional via a PCIe adapter
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Optional via a PCIe adapter	Optional via a PCIe adapter
System Memory	8 GB SO-DIMM DDR4 (1 x 8 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
Drive Bay	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.
M.2 Slot	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP](http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP](http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2	2
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	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
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	-
USB 3.2 Gen 2 (10Gbps) Port	3 x Type-A USB 3.2 Gen 2 10Gbps 1 x Type-C USB 3.2 Gen 1 5Gbps	3 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps 1 x Type-C USB 3.2 Gen 1 5V/1A 5Gbps
HDMI Output	Optional via a PCIe adapter	Optional via a PCIe adapter
Form Factor	Tower	Tower
Abmessungen (HxBxT)	188.2 x 264.3 x 280.8	188.2 x 199.3 x 280.8
Gewicht (Netto)	5.78	5.03
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V AC, 50-60Hz, 3.5A	250W, 100-240V AC, 50-60Hz, 3.5A
Power Consumption: Operating Mode, Typical	45.898 Tested with drives fully populated.	29.792 Tested with drives fully populated.
Lüfter	System Lüfter: 2 x 92mm CPU Lüfter: 1 x 60mm	System Lüfter: 1 x 120mm CPU Lüfter: 1 x 60mm
Kensington Security Slot	Yes	-

Hochgeschwindigkeits 25GbE Vernetzung





	TS-h3088XU-RP		TS-h2490FU	
				
Model	TS-h3088XU-RP-W1270-64G	TS-h3088XU-RP-W1250-32G	TS-h2490FU-7302P-128G	
CPU	Intel® Xeon® W-1270 8-core/16-thread processor, up to 5.0 GHz	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz	AMD EPYC™ 7302P 16-core/32-thread processor, up to 3.3 GHz	
CPU Architecture	64-bit x86		64-bit x86	
Graphic Processors	-		-	
Floating Point Unit	Yes		-	
Encryption Engine	Yes (AES-NI)		Yes (AES-NI)	
Hardware-beschleunigte Transkodierung	Yes		-	
System Memory	64 GB UDIMM DDR4 ECC (4 x 16 GB)	32 GB UDIMM DDR4 ECC (2 x 16 GB)	128 GB RDIMM DDR4 ECC (8 x 16 GB)	
Maximum Memory	128 GB (4 x 32 GB)		4 TB (16 x 256 GB)	
Memory Slot	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.		16 x Long-DIMM DDR4	
Drive Bay	Front: 24 x 2.5-inch SATA 6Gb/s, 3Gb/s Rear: 6 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]		24 x 2.5-inch U.2 PCIe NVMe The system is shipped without SSD. For the SSD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Hot-swappable	Yes		Yes	
M.2 Slot	-		-	
SSD-Cache-Beschleunigung Unterstützung	Yes		Yes	
Gigabit Ethernet Port (RJ45)	-		-	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4		2 (also support 10M)	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter		-	
10 Gigabit Ethernet Port	Optional via an adapter		-	
25 Gigabit Ethernet Port	2		4 x 25GbE SFP28 SmartNIC port	
Thunderbolt Port	-		-	
PCIe Slot	3 Slot 1: PCIe Gen3 x8 or x4 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 25GbE network adapter. Please reserve this slot for the 25GbE adapter for the best performance. **Slot 1 provides the width of PCIe Gen3 x8 when Slot 2 is not in use, and provides the width of PCIe Gen3 x4 when Slot 2 is in use.		5 Slot 1: PCIe Gen4 x4 Slot 2: PCIe Gen4 x8 or x4 Slot 3: PCIe Gen4 x4 Slot 4: PCIe Gen4 x8 Slot 5: PCIe Gen4 x16 or x8 *Slot 4 and Slot 5 are preinstalled with 25GbE network adapters. Please reserve these slots for the 25GbE adapters for the best performance. **Slot 2 provides the width of PCIe Gen4 x8 when Slot 3 is not in use, and provides the width of PCIe Gen4 x4 when Slot 3 is in use. ***Slot 5 provides the width of PCIe Gen4 x16 when Slot 4 is not in use, and provides the width of PCIe Gen4 x8 when Slot 4 is in use.	
USB 2.0 port	-		-	
USB 3.2 Gen 1 port	-		2	
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps		-	
HDMI Output	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)		-	
Form Factor	Rackmount		Rackmount	
Abmessungen (HxBxT)	88.3 x 481.07 x 515.02		88.3 x 480.97 x 510.23	
Gewicht (Netto)	12.26		15.2	
Betriebstemperatur	0 - 40°C (32°F - 104°F)		0 - 35°C (32°F - 95°F)	
Power Supply Unit	550W(x2), 100-240V		1100W PSU(x2), 200-240Vac, Max Wattage: 1100W@200-240Vac 850W@100-240Vac	
Power Consumption: Operating Mode, Typical	261.81 Tested with drives fully populated.		277.64 Tested with drives fully populated.	
Lüfter	3 x 60mm, 12VDC		4 x 60mm, 12VDC	
Kensington Security Slot	-		-	



TS-h2490FU	
	
TS-h2490FU-7232P-64G	
AMD EPYC™ 7232P 8-core/16-thread processor, up to 3.2 GHz	
64-bit x86	
-	
-	
Yes (AES-NI)	
-	
64 GB RDIMM DDR4 ECC (8 x 8 GB)	
4 TB (16 x 256 GB)	
16 x Long-DIMM DDR4	
24 x 2.5-inch U.2 PCIe NVMe The system is shipped without SSD. For the SSD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Yes	
-	
Yes	
-	
2 (also support 10M)	
-	
-	
2 x 25GbE SFP28 SmartNIC port	
-	
5 Slot 1: PCIe Gen4 x4 Slot 2: PCIe Gen4 x8 or x4 Slot 3: PCIe Gen4 x4 Slot 4: PCIe Gen4 x8 Slot 5: PCIe Gen4 x16 or x8 *Slot 5 is preinstalled with a 25GbE network adapter. **Slot 2 provides the width of PCIe Gen4 x8 when Slot 3 is not in use, and provides the width of PCIe Gen4 x4 when Slot 3 is in use. ***Slot 5 provides the width of PCIe Gen4 x16 when Slot 4 is not in use, and provides the width of PCIe Gen4 x8 when Slot 4 is in use.	
-	
2	
-	
-	
Rackmount	
88.3 x 480.97 x 510.23	
15.2	
0 - 35°C (32°F - 95°F)	
1100W PSU(x2), 200-240Vac, Max Wattage: 1100W@200-240Vac 850W@100-240Vac	
277.64 Tested with drives fully populated.	
4 x 60mm, 12VDC	
-	



QSW-M5216-1T	
	
Management Type	Web Managed
Management Port	1 x 1GbE RJ45
Power Supply Description	Internal Power Supply Unit
Max. Power Consumption	29.07W
Input Power Type	AC
Input Voltage Range	100-240VAC, 50/60 Hz
MAC Address Table	16K
Total Non-Blocking Throughput	410Gbps
Switching Capacity	820Gbps
Management Interface	Web
Console	RS232
Energy Efficient Ethernet (IEEE 802.3az compliant)	Yes
Lüfter	Yes
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.3by 25 Gigabit Ethernet IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service Forward Error Correction(FEC)
Number of Ports	17
10GbE SFP+	-
25GbE SFP28	16
10GbE BASE-T (RJ45)	1
10GbE SFP+/RJ45 Combo Ports	-
2.5GbE (RJ45)	-
1GbE (RJ45)	-
Total PoE Ports	-
PoE PSE (802.3af, 15.4W)	-
PoE+ PSE (802.3at, 30W)	-
PoE++ PSE (802.3bt, 90W)	-
PoE Power Output	-
Total PoE Power Budget	-
Form Factor	Rackmount
Abmessungen (HxBxT)	43.5 x 285 x 237.7
Gewicht (Netto)	2.15



10GbE-Konnektivität: Die Zukunft ist jetzt!







	ES1686dc	ES1686dc
		
Model	ES1686dc-2142IT-128G	ES1686dc-2142IT-96G
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
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	-	-
System Memory	64 GB RDIMM DDR4 ECC (4 x 16 GB) per controller	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller
Maximum Memory	512 GB (8 x 64GB)	512 GB (8 x 64GB)
Memory Slot	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.
Drive Bay	16 x 3.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s	16 x 3.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD-Cache-Beschleunigung Unterstützung	Yes Read cache only	Yes Read cache only
Gigabit Ethernet Port (RJ45)	3 for each controller (one for remote management)	3 for each controller (one for remote management)
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	4 x 10GbE SFP+ for each controller	4 x 10GbE SFP+ for each controller
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)
USB 2.0 port	-	-
USB 3.2 Gen 1 port	2 per each controller	2 per each controller
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	-	-
Form Factor	3U Rackmount	3U Rackmount
Abmessungen (HxBxT)	132 x 483.05 x 630.62	132 x 483.05 x 630.62
Gewicht (Netto)	25.83	25.83
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	Redundant/ Hot Swap Power Vin:90~264VAC;770W	Redundant/ Hot Swap Power Vin:90~264VAC;770W
Power Consumption: Operating Mode, Typical	500.87 Tested with drives fully populated.	500.87 Tested with drives fully populated.
Lüfter	Hot-swappable Lüfter module (60*60*38mm; 16000RPM/12v/2.8A x 3)	Hot-swappable Lüfter module (60*60*38mm; 16000RPM/12v/2.8A x 3)
Kensington Security Slot	-	-



	ES1686dc	ES2486dc
		
	ES1686dc-2123IT-64G	ES2486dc-2142IT-128G
	Intel® Xeon® D-2123IT 4-core 2.20 GHz processor (burst up to 3.0 GHz) per controller	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor, up to 3.0 GHz
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	32 GB RDIMM DDR4 ECC (4x 8 GB) per controller	64 GB RDIMM DDR4 ECC (4 x 16 GB) per controller
	512 GB (8 x 64GB)	512 GB (8 x 64GB)
	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.
	16 x 3.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s	24 x 2.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s
	Yes	Yes
	-	-
	Yes Read cache only	Yes Read cache only
	3 for each controller (one for remote management)	3 for each controller (one for remote management)
	-	-
	-	-
	4 x 10GbE SFP+ for each controller	4 x 10GbE SFP+ for each controller
	-	-
	-	-
	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)
	-	-
	2 per each controller	2 per each controller
	-	-
	-	-
	3U Rackmount	2U Rackmount
	132 x 483.05 x 630.62	88.3 x 483 x 545.1
	25.83	27.41
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	Redundant/ Hot Swap Power Vin:90~264VAC;770W	Redundant/ Hot Swap Power Vin:90~264VAC;700W
	500.87 Tested with drives fully populated.	579.59 Tested with drives fully populated.
	Hot-swappable Lüfter module (60*60*38mm; 16000RPM/12v/2.8A x 3)	Hot-swappable Lüfter module (60*60*38mm; 16000RPM/12v/2.8A x 3)
	-	-



	ES2486dc	TS-h1886XU-RP
		
Model	ES2486dc-2142IT-96G	TS-h1886XU-RP-D1622-32G
CPU	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor, up to 3.0 GHz	Intel® Xeon® D-1622 4-core 2.60 GHz processor, up to 3.2 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	-	-
System Memory	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller	32 GB UDIMM DDR4 ECC (2 x 16GB)
Maximum Memory	512 GB (8 x 64GB)	128 GB (4 x 32 GB)
Memory Slot	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.	4 x Long-DIMM DDR4
Drive Bay	24 x 2.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s	Front: 12 x 3.5-inch SATA 6Gb/s, 3Gb/s Rear: 6 x 2.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD-Cache-Beschleunigung Unterstützung	Yes Read cache only	Yes
Gigabit Ethernet Port (RJ45)	3 for each controller (one for remote management)	4
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	4 x 10GbE SFP+ for each controller	2 x 10GbE SFP+ SmartNIC port Pre-installed with a 10GbE PCIe adapter
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)	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 *Slot 4 is preinstalled with a 10GbE network adapter. **Slot 2 provides the width of PCIe Gen 3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 1 is in use. ***Slot 4 provides the width of PCIe Gen 3 x8 when Slot 3 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 3 is in use.
USB 2.0 port	-	-
USB 3.2 Gen 1 port	2 per each controller	2
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	-	-
Form Factor	2U Rackmount	Rackmount
Abmessungen (HxBxT)	88.3 x 483 x 545.1	88.3 x 482 x 549.7
Gewicht (Netto)	27.41	12.73
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	Redundant/ Hot Swap Power Vin:90~264VAC;700W	550W(x2), 100-240V
Power Consumption: Operating Mode, Typical	579.59 Tested with drives fully populated.	117.92 Tested with drives fully populated.
Lüfter	Hot-swappable Lüfter module (60*60*38mm; 16000RPM/12v/2.8A x 3)	System Lüfter: 3 x 60mm, 12VDC
Kensington Security Slot	-	-



	TS-1886XU-RP	TS-1886XU-RP
		
	TS-1886XU-RP-D1622-8G	TS-1886XU-RP-D1602-4G
	Intel® Xeon® D-1622 4-core 2.60 GHz processor, up to 3.2 GHz	Intel® Xeon® D-1602 2-core 2.50 GHz processor, up to 3.2 GHz
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	8 GB UDIMM DDR4 ECC (2 x 4GB)	4 GB UDIMM DDR4 ECC (1 x 4GB)
	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
	Front: 12 x 3.5-inch SATA 6Gb/s, 3Gb/s Rear: 6 x 2.5-inch SATA 6Gb/s, 3Gb/s	Front: 12 x 3.5-inch SATA 6Gb/s, 3Gb/s Rear: 6 x 2.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	4	4
	-	-
	-	-
	2 x 10GbE SFP+ SmartNIC port Pre-installed with a 10GbE PCIe adapter	2 x 10GbE SFP+ SmartNIC port Pre-installed with a 10GbE PCIe adapter
	-	-
	-	-
	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 *Slot 4 is preinstalled with a 10GbE network adapter. **Slot 2 provides the width of PCIe Gen 3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 1 is in use. ***Slot 4 provides the width of PCIe Gen 3 x8 when Slot 3 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 3 is in use.	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 *Slot 4 is preinstalled with a 10GbE network adapter. **Slot 2 provides the width of PCIe Gen 3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 1 is in use. ***Slot 4 provides the width of PCIe Gen 3 x8 when Slot 3 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 3 is in use.
	-	-
	2	2
	-	-
	-	-
	Rackmount	Rackmount
	88.3 x 482 x 549.7	88.3 x 482 x 549.7
	12.73	12.73
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	550W(x2), 100-240V	550W(x2), 100-240V
	117.92 Tested with drives fully populated.	117.92 Tested with drives fully populated.
	System Lüfter: 3 x 60mm, 12VDC	System Lüfter: 3 x 60mm, 12VDC
	-	-



	TVS-h1288X	TVS-h1688X
		
Model	TVS-h1288X-W1250-16G	TVS-h1688X-W1250-32G
CPU	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics P630	Intel® UHD Graphics P630
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	Yes
System Memory	16 GB ECC UDIMM DDR4 (2 x 8 GB)	32GB ECC UDIMM DDR4 (2 x 16 GB)
Maximum Memory	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
Drive Bay	8 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	12 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	Yes	Yes
M.2 slot	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4 (also support 10M)	4 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter	Optional via an adapter
10 Gigabit Ethernet Port	2 x 10GBASE-T (10G/1G)	2 x 10GBASE-T (10G/1G)
25 Gigabit Ethernet Port	Optional via an adapter	Optional via an adapter
Thunderbolt Port	Optional via the QXP-T32P 2-port Thunderbolt 3 PCIe adapter	Optional via the QXP-T32P 2-port Thunderbolt 3 PCIe adapter
PCIe Slot	3 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 2-port 10GbE network adapter.	3 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 2-port 10GbE network adapter.
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	-
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C 3 x Type-A	2 x Type-C 4 x Type-A
HDMI Output	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)
Form Factor	Tower	Tower
Abmessungen (HxBxT)	234.6 x 369.9 x 319.8	303.84 x 369.89 x 319.8
Gewicht (Netto)	11.27	13.41
Betriebstemperatur	0 - 40°C (32°F - 104°F)	0 - 40°C (32°F - 104°F)
Power Supply Unit	550W PSU, 100~240V	550W PSU, 100~240V
Power Consumption: Operating Mode, Typical	97.492 Tested with drives fully populated.	108.67 Tested with drives fully populated.
Lüfter	System Lüfter: 3 x 80mm, 12VDC CPU Lüfter: 2 x 97mm, 12VDC	System Lüfter: 3 x 80mm, 12VDC CPU Lüfter: 2 x 97mm, 12VDC
Kensington Security Slot	Yes	Yes



	TS-h2483XU-RP	TS-h1683XU-RP
		
	TS-h2483XU-RP-E2236-128G	TS-h1683XU-RP-E2236-128G
	Intel® Xeon® E-2236 6-core 3.4 GHz processor (burst up to 4.8 GHz)	Intel® Xeon® E-2236 6-core 3.4 GHz processor (burst up to 4.8 GHz)
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	128 GB UDIMM DDR4 ECC (4 x 32GB)	128 GB UDIMM DDR4 ECC (4 x 32GB)
	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
	24 x 3.5-inch SATA 6Gb/s, 3Gb/s	16 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	4	4
	-	-
	-	-
	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port
	-	-
	-	-
	5 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x4 (CPU) Slot 3: PCIe Gen 2 x4 (PCH) Slot 4: PCIe Gen 3 x8 (CPU) Slot 5: PCIe Gen 2 x4 (PCH) Slot 2 and slot 4 are preinstalled with 10GbE network adapters.	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 2 and slot 4 are preinstalled with 10GbE network adapters.
	-	-
	-	-
	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps
	-	-
	4U Rackmount	3U Rackmount
	176.15 x 481.04 x 672.02	130 x 481 x 573.5
	20.67	13.76
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	800W(x2), 100-240V	500W(x2), 100-240V
	168.97 Tested with drives fully populated.	149 Tested with WD10EFRX fully populated.
	System Lüfter: 3 x 80mm, 12VDC	System Lüfter: 4 x 92mm, 12VDC
	-	-



	TS-h1283XU-RP	TS-h1283XU-RP
		
Model	TS-h1283XU-RP-E2236-128G	TS-h1283XU-RP-E2236-32G
CPU	Intel® Xeon® E-2236 6-core/12-thread 3.4 GHz processor, up to 4.8 GHz	Intel® Xeon® E-2236 6-core/12-thread 3.4 GHz processor, up to 4.8 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	-	-
System Memory	128 GB UDIMM DDR4 ECC (4 x 32GB)	32 GB UDIMM DDR4 ECC (2 x 16GB)
Maximum Memory	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	4	4
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 3 and slot 4 are preinstalled with 10GbE network adapters	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 3 and slot 4 are preinstalled with 10GbE network adapters
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	-
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	-	-
Form Factor	2U Rackmount	2U Rackmount
Abmessungen (HxBxT)	88.3 x 482 x 562	88.3 x 482 x 562
Gewicht (Netto)	11.75	11.75
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	500W(x2), 100-240V	500W(x2), 100-240V
Power Consumption: Operating Mode, Typical	105.12 Tested with drives fully populated.	105.12 Tested with drives fully populated.
Lüfter	System Lüfter: 2 x 60mm, 12VDC	System Lüfter: 2 x 60mm, 12VDC
Kensington Security Slot	-	-



	TS-2483XU-RP	TS-1683XU-RP
		
	TS-2483XU-RP-E2136-16G	TS-1683XU-RP-E2124-16G
	Intel® Xeon® E-2136 6-core 3.3 GHz processor (burst up to 4.5 GHz)	Intel® Xeon® E-2124 quad-core 3.3 GHz processor (burst up to 4.3 GHz)
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	16 GB UDIMM DDR4 ECC (2 x 8GB)	16 GB UDIMM DDR4 ECC (2 x 8GB)
	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
	24 x 3.5-inch SATA 6Gb/s, 3Gb/s	16 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	4	4
	-	-
	-	-
	2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+ SmartNIC port
	-	-
	-	-
	5 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x4 (CPU) Slot 3: PCIe Gen 2 x4 (PCH) Slot 4: PCIe Gen 3 x8 (CPU) Slot 5: PCIe Gen 2 x4 (PCH) Slot 5 is preinstalled with a 10GbE network adapter	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 4 is preinstalled with a 10GbE network adapter
	-	-
	-	-
	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps
	-	-
	4U Rackmount	3U Rackmount
	176.15 x 481.04 x 672.02	130 x 481 x 573.5
	20.67	13.76
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	800W(x2), 100-240V	500W(x2), 100-240V
	168.97 Tested with drives fully populated.	130.43 Tested with drives fully populated.
	System Lüfter: 4 x 92mm, 12VDC	System Lüfter: 4 x 92mm, 12VDC
	-	-



	TS-1283XU-RP	TS-983XU-RP
		
Model	TS-1283XU-RP-E2124-8G	TS-983XU-RP-E2124-8G
CPU	Intel® Xeon® E-2124 quad-core 3.3 GHz processor (burst up to 4.3 GHz)	Intel® Xeon® E-2124 quad-core 3.3 GHz processor (burst up to 4.3 GHz)
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	-	-
System Memory	8 GB UDIMM DDR4 ECC (2 x 4GB)	8 GB UDIMM DDR4 ECC (2 x 4GB)
Maximum Memory	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch + 5 x 2.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	4	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+ SmartNIC port
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 4 is preinstalled with a 10GbE network adapter	1 Slot 1: PCIe Gen 3 x16
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	4
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps
HDMI Output	-	-
Form Factor	2U Rackmount	1U Rackmount
Abmessungen (HxBxT)	88.3 x 482 x 562	43.3 x 482.6 x 507.54
Gewicht (Netto)	11.75	8.63
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	300W(x2), 100-240V	300W(x2), 100-240V
Power Consumption: Operating Mode, Typical	105.12 Tested with drives fully populated.	84.74 Tested with drives fully populated.
Lüfter	System Lüfter: 2 x 60mm, 12VDC	System Lüfter: 3 x 40mm, 12VDC
Kensington Security Slot	-	-



	TS-983XU	TS-883XU-RP
		
	TS-983XU-E2124-8G	TS-883XU-RP-E2124-8G
	Intel® Xeon® E-2124 quad-core 3.3 GHz processor (burst up to 4.3 GHz)	Intel® Xeon® E-2124 quad-core 3.3 GHz processor (burst up to 4.3 GHz)
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	8 GB UDIMM DDR4 ECC (2 x 4GB)	8 GB UDIMM DDR4 ECC (2 x 4GB)
	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
	4 x 3.5-inch + 5 x 2.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	2	4
	-	-
	-	-
	2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+ SmartNIC port
	-	-
	-	-
	1 Slot 1: PCIe Gen 3 x16	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 4 is preinstalled with a 10GbE network adapter
	-	-
	4	-
	2 x Type-C USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps
	-	-
	1U Rackmount	2U Rackmount
	43.3 x 482.6 x 484.15	88.3 x 482 x 562
	7.48	10.99
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W, 100-240V	300W(x2), 100-240V
	74.35 Tested with drives fully populated.	89.99 Tested with drives fully populated.
	System Lüfter: 3 x 40mm, 12VDC	System Lüfter: 2 x 60mm, 12VDC
	-	-


	TS-883XU	TS-977XU-RP
		
Model	TS-883XU-E2124-8G	TS-977XU-RP-3600-8G
CPU	Intel® Xeon® E-2124 quad-core 3.3 GHz processor (burst up to 4.3 GHz)	AMD Ryzen™ 5 3600 6-core/12-thread processor, burst up to 4.2 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	-
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	-	-
System Memory	8 GB UDIMM DDR4 ECC (2 x 4GB)	8 GB UDIMM DDR4 (1 x 8GB)
Maximum Memory	128 GB (4 x 32 GB)	64 GB (4 x 16 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
Drive Bay	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch + 5 x 2.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	4	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+ SmartNIC port
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	4 Slot 1: PCIe Gen 2 x4 (PCH) Slot 2: PCIe Gen 3 x8 (CPU) Slot 3: PCIe Gen 3 x4 (CPU) Slot 4: PCIe Gen 3 x4 (CPU) Slot 4 is preinstalled with a 10GbE network adapter	1 Slot 1: PCIe Gen 3 x16
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	4
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 4 x Type-A USB 3.2 Gen 2 10Gbps	1 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	-	-
Form Factor	2U Rackmount	1U Rackmount
Abmessungen (HxBxT)	88.3 x 482 x 562	43.3 x 482.6 x 505.54
Gewicht (Netto)	10.39	8.62
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	350W, 100-240V	300W(x2), 100-240V
Power Consumption: Operating Mode, Typical	72.16 Tested with drives fully populated.	76.43 Tested with drives fully populated.
Lüfter	System Lüfter: 2 x 60mm, 12VDC	System Lüfter: 3 x 40mm, 12VDC
Kensington Security Slot	-	-



	TS-877XU-RP	TVS-672X
		
	TS-877XU-RP-3600-8G	TVS-672X-i5-8G
	AMD Ryzen™ 5 3600 6-core/12-thread processor, burst up to 4.2 GHz	Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz
	64-bit x86	64-bit x86
	-	Intel® UHD Graphics 630
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	Yes
	8 GB UDIMM DDR4 (2 x 4GB)	8 GB SODIMM DDR4 (1 x 8 GB)
	64 GB (4 x 16 GB)	64 GB (2 x 32 GB)
	4 x Long-DIMM DDR4	2 x SO-DIMM DDR4
	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	2 x M.2 2280 PCIe Gen3 x2 slots
	Yes	Yes
	2	2
	-	-
	-	-
	2 x 10GbE SFP+ SmartNIC port	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
	-	-
	-	-
	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** *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use.	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)
	-	-
	4	1
	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
	-	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
	2U Rackmount	Tower
	88.3 x 482 x 562	188.2 x 264.3 x 279.6
	13.31	6.553
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	300W (x2), 100-240V	250W, 100-240V
	86.04 Tested with drives fully populated.	45.6 Tested fully populated with WD10EFRX hard drives.
	System Lüfter: 2 x 70mm, 12VDC	System Lüfter: 1 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
	-	Yes



	TVS-672X	TVS-872X
		
Model	TVS-672X-i3-8G	TVS-872X-i5-8G
CPU	Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor	Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics 630	Intel® UHD Graphics 630
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	Yes
System Memory	8 GB SODIMM DDR4 (1 x 8 GB)	8 GB SODIMM DDR4 (1 x 8 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
Drive Bay	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	2	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)
USB 2.0 port	-	-
USB 3.2 Gen 1 port	1	1
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	Tower	Tower
Abmessungen (HxBxT)	188.2 x 264.3 x 279.6	188.2 x 329.3 x 279.6
Gewicht (Netto)	6.553	7.06
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	250W, 100-240V
Power Consumption: Operating Mode, Typical	45.6 Tested fully populated with WD10EFRX hard drives.	65.03 Tested fully populated with WD10EFRX hard drives.
Lüfter	System Lüfter: 1 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 2 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
Kensington Security Slot	Yes	Yes



	TVS-872X	TVS-872XT
		
	TVS-872X-i3-8G	TVS-872XT-i5-16G
	Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor	Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz
	64-bit x86	64-bit x86
	Intel® UHD Graphics 630	Intel® UHD Graphics 630
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Yes	Yes
	8 GB SODIMM DDR4 (1 x 8 GB)	16 GB SODIMM DDR4 (2 x 8 GB)
	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
	Yes	Yes
	2	2
	-	-
	-	-
	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
	-	-
	-	2 (Thunderbolt™ 3)
	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter
	-	-
	1	1
	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
	Tower	Tower
	188.2 x 329.3 x 279.6	188.2 x 329.3 x 279.6
	7.06	7.06
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W, 100-240V	250W, 100-240V
	65.03 Tested fully populated with WD10EFRX hard drives.	65.03 Tested fully populated with WD10EFRX hard drives.
	System Lüfter: 2 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 2 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
	Yes	Yes



	TVS-672XT	TVS-672XT
		
Model	TVS-672XT-i5-8G	TVS-672XT-i3-8G
CPU	Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz	Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics 630	Intel® UHD Graphics 630
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	Yes
System Memory	8 GB SODIMM DDR4 (2 x 4 GB)	8 GB SODIMM DDR4 (2 x 4 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
Drive Bay	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	2	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	2 (Thunderbolt™ 3)	2 (Thunderbolt™ 3)
PCIe Slot	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter
USB 2.0 port	-	-
USB 3.2 Gen 1 port	1	1
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	Tower	Tower
Abmessungen (HxBxT)	188.2 x 264.3 x 279.6	188.2 x 264.3 x 279.6
Gewicht (Netto)	6.553	6.553
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	250W, 100-240V
Power Consumption: Operating Mode, Typical	45.6 Tested fully populated with WD10EFRX hard drives.	45.6 Tested fully populated with WD10EFRX hard drives.
Lüfter	System Lüfter: 2 x 92mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 2 x 92mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
Kensington Security Slot	Yes	Yes



	TVS-472XT	TVS-472XT
		
	TVS-472XT-i5-4G	TVS-472XT-i3-4G
	Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz	Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor
	64-bit x86	64-bit x86
	Intel® UHD Graphics 630	Intel® UHD Graphics 630
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Yes	Yes
	4 GB SODIMM DDR4 (1 x 4 GB)	4 GB SODIMM DDR4 (1 x 4 GB)
	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
	4 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
	Yes	Yes
	2	2
	-	-
	-	-
	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
	-	-
	2 (Thunderbolt™ 3)	2 (Thunderbolt™ 3)
	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter
	-	-
	1	1
	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
	Tower	Tower
	188.2 x 199.3 x 279.6	188.2 x 199.3 x 279.6
	5.4	5.4
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W, 100-240V	250W, 100-240V
	37.32 Tested fully populated with WD10EFRX hard drives.	37.32 Tested fully populated with WD10EFRX hard drives.
	System Lüfter: 1 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 1 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
	Yes	Yes

	TVS-472XT	TS-h2477XU-RP
		
Model	TVS-472XT-PT-4G	TS-h2477XU-RP-3700X-32G
CPU	Intel® Pentium G5400T 2-core/4-thread 3.1 GHz Processor	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics 610	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	-
System Memory	4 GB SODIMM DDR4 (2 x 2 GB)	32 GB UDIMM DDR4 (2 x 16GB)
Maximum Memory	64 GB (2 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	2 x SO-DIMM DDR4	4 x Long-DIMM DDR4
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s	24 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	2 x M.2 2280 PCIe Gen3 x2 slots	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	2	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	2 x 10GbE SFP+ SmartNIC port
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	2 (Thunderbolt™ 3)	-
PCIe Slot	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter	4 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x8 or PCIe Gen 3 x4* Slot 3: PCIe Gen 3 x8 or PCIe Gen 3 x4** Slot 4: PCIe Gen 3 x4 *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use. ***PCIe slot 4 is preinstalled with a 10GbE network adapter
USB 2.0 port	-	-
USB 3.2 Gen 1 port	1	4
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	-
Form Factor	Tower	4U Rackmount
Abmessungen (HxBxT)	188.2 x 199.3 x 279.6	176.15 x 481.04 x 672.02
Gewicht (Netto)	5.4	22.66
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	800W(x2), 100-240V
Power Consumption: Operating Mode, Typical	37.32 Tested fully populated with WD10EFRX hard drives.	143.97 Tested with drives fully populated.
Lüfter	System Lüfter: 1 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 4 x 92mm, 12VDC
Kensington Security Slot	Yes	-



	TS-h1677XU-RP	TS-h1277XU-RP
		
	TS-h1677XU-RP-3700X-32G	TS-h1277XU-RP-3700X-128G
	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	32 GB UDIMM DDR4 (2 x 16GB)	128 GB UDIMM DDR4 (4 x 32GB)
	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
	16 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	2	2
	-	-
	-	-
	2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port
	-	-
	-	-
	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** *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use.	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** *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use. ***PCIe slot 4 is preinstalled with a 10GbE network adapter
	-	-
	4	4
	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps
	-	-
	3U Rackmount	2U Rackmount
	130 x 481 x 573.5	88.3 x 482 x 562
	15.26	13.73
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	500W(x2), 100-240V	300W (x2), 100-240V
	136.45 Tested with drives fully populated.	106.66 Tested with drives fully populated.
	System Lüfter: 4 x 92mm, 12VDC	System Lüfter: 2 x 70mm, 12VDC
	-	-

	TS-h1277XU-RP	TS-h977XU-RP
		
Model	TS-h1277XU-RP-3700X-32G	TS-h977XU-RP-3700X-32G
CPU	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz	AMD Ryzen™ 7 3700X 8-core/16-thread processor, burst up to 4.4 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	-
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	-	-
System Memory	32 GB UDIMM DDR4 (2 x 16GB)	32 GB UDIMM DDR4 (2 x 16GB)
Maximum Memory	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch + 5 x 2.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	2	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	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** *Slot 2 provides the width of PCIe Gen.3 x8 when Slot 1 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 1 is in use. **Slot 3 provides the width of PCIe Gen.3 x8 when Slot 4 is not in use, and provides the width of PCIe Gen.3 x4 when Slot 4 is in use. ***PCIe slot 4 is preinstalled with a 10GbE network adapter	1 Slot 1: PCIe Gen 3 x16 PCIe slot is preinstalled with a 10GbE network adapter
USB 2.0 port	-	-
USB 3.2 Gen 1 port	4	4
USB 3.2 Gen 2 (10Gbps) Port	1 x Type-C USB 3.2 Gen 2 10Gbps 1 x Type-A USB 3.2 Gen 2 10Gbps	1 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	-	-
Form Factor	2U Rackmount	1U Rackmount
Abmessungen (HxBxT)	88.3 x 482 x 562	43.3 x 482.6 x 505.54
Gewicht (Netto)	13.73	8.62
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	300W (x2), 100-240V	300W(x2), 100-240V
Power Consumption: Operating Mode, Typical	106.66 Tested with drives fully populated.	76.43 Tested with drives fully populated.
Lüfter	System Lüfter: 2 x 70mm, 12VDC	System Lüfter: 3 x 40mm, 12VDC
Kensington Security Slot	-	-



	TS-h973AX	TS-h973AX
		
	TS-h973AX-32G	TS-h973AX-8G
	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	-	-
	32 GB SO-DIMM DDR4 (2 x 16 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)
	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
	2 x SO-DIMM DDR4 Support optional ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.	2 x SO-DIMM DDR4 Support optional ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.
	5 x 3.5-inch + 4 x 2.5-inch The system is shipped without HDD/SSD. For the HDD/SSD compatibility list, please visit [https://www.qnap.com/compatibility/]	5 x 3.5-inch + 4 x 2.5-inch The system is shipped without HDD/SSD. For the HDD/SSD compatibility list, please visit [https://www.qnap.com/compatibility/]
	Yes	Yes
	-	-
	Yes	Yes
	-	-
	2	2
	Optional via the QNA-UC5G1T USB to 5GbE network adapter	Optional via the QNA-UC5G1T USB to 5GbE network adapter
	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	1 x Type-C USB 3.2 Gen 2 3 x Type-A USB 3.2 Gen 2	1 x Type-C USB 3.2 Gen 2 3 x Type-A USB 3.2 Gen 2
	-	-
	Tower	Tower
	182.65 x 224.6 x 224.1	182.65 x 224.6 x 224.1
	3.52	3.52
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	External, 120 W, AC 100 to 240 V	External, 120 W, AC 100 to 240 V
	55.41 Tested with drives fully populated.	55.41 Tested with drives fully populated.
	1 x 140mm, 12VDC	1 x 140mm, 12VDC
	Yes	Yes


	TS-1232PXU-RP	TS-832PXU-RP
		
Model	TS-1232PXU-RP-4G	TS-832PXU-RP-4G
CPU	AnnapurnaLabs Alpine AL324 64-bit ARM® Cortex-A57 quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL324 64-bit ARM® Cortex-A57 quad-core 1.7GHz processor
CPU Architecture	64-bit ARM	64-bit ARM
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes	Yes
Hardware-beschleunigte Transkodierung	-	-
System Memory	4 GB UDIMM DDR4 (1 x 4 GB)	4 GB UDIMM DDR4 (1 x 4 GB)
Maximum Memory	16 GB (1 x 16 GB)	16 GB (1 x 16 GB)
Memory Slot	1 x Long-DIMM DDR4	1 x Long-DIMM DDR4
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	Optional via a PCIe adapter	Optional via a PCIe adapter
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	2 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	2 x 10GbE SFP+	2 x 10GbE SFP+
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	1 Slot 1: PCIe Gen 2 x2 PCIe bandwidth limitations will restrict the NAS 10GbE performance.	1 Slot 1: PCIe Gen 2 x2 PCIe bandwidth limitations will restrict the NAS 10GbE performance.
USB 2.0 port	-	-
USB 3.2 Gen 1 port	4	4
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	-	-
Form Factor	2U Rackmount	2U Rackmount
Abmessungen (HxBxT)	89 x 482 x 534	89 x 482 x 534
Gewicht (Netto)	11.34	10.94
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W (x2) PSU, 100 - 240V	250W (x2) PSU, 100 - 240V
Power Consumption: Operating Mode, Typical	83.57 Tested with drives fully populated.	69.191 Tested with drives fully populated.
Lüfter	2 x 70mm, 12VDC	2 x 70mm, 12VDC
Kensington Security Slot	-	-



	TS-832PXU	TS-432PXU-RP
		
	TS-832PXU-4G	TS-432PXU-RP-2G
	AnnapurnaLabs Alpine AL324 64-bit ARM® Cortex-A57 quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL324 64-bit ARM® Cortex-A57 quad-core 1.7GHz processor
	64-bit ARM	64-bit ARM
	-	-
	Yes	Yes
	Yes	Yes
	-	-
	4 GB UDIMM DDR4 (1 x 4 GB)	2 GB UDIMM DDR4 (1 x 2 GB)
	16 GB (1 x 16 GB)	16 GB (1 x 16 GB)
	1 x Long-DIMM DDR4	1 x Long-DIMM DDR4
	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5" SATA 6Gb/s, 3Gb/s
	Yes	Yes
	Optional via a PCIe adapter	Optional via a PCIe adapter
	Yes	Yes
	-	-
	2 (also support 10M)	2 (also support 10M)
	-	-
	2 x 10GbE SFP+	2 x 10GbE SFP+
	-	-
	-	-
	1 Slot 1: PCIe Gen 2 x2 PCIe bandwidth limitations will restrict the NAS 10GbE performance.	1 Slot 1: PCIe Gen 2 x2 PCIe bandwidth limitations will restrict the NAS 10GbE performance.
	-	-
	4	4
	-	-
	-	-
	2U Rackmount	1U Rackmount
	89 x 482 x 534	44 x 439 x 499
	9.45	8.12
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W PSU, 100 - 240V	250W (x2) PSU, 100 - 240V
	56.412 Tested with drives fully populated.	53.343 Tested with drives fully populated.
	2 x 70mm, 12VDC	2 x 40mm, 12VDC
	-	-



	TS-432PXU	TS-431X3
		
Model	TS-432PXU-2G	TS-431X3-4G
CPU	AnnapurnaLabs Alpine AL324 64-bit ARM® Cortex-A57 quad-core 1.7GHz processor	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz
CPU Architecture	64-bit ARM	32-bit ARM
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes	Yes
Hardware-beschleunigte Transkodierung	-	-
System Memory	2 GB UDIMM DDR4 (1 x 2 GB)	4 GB SODIMM DDR3 (1 x 4 GB)
Maximum Memory	16 GB (1 x 16 GB)	8 GB (1 x 8 GB)
Memory Slot	1 x Long-DIMM DDR4	1 x SO-DIMM DDR3
Drive Bay	4 x 3.5" SATA 6Gb/s, 3Gb/s	4x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	Optional via a PCIe adapter	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	1
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	1
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	2 x 10GbE SFP+	1 x 10GbE SFP+
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	1 Slot 1: PCIe Gen 2 x2 PCIe bandwidth limitations will restrict the NAS 10GbE performance.	-
USB 2.0 port	-	-
USB 3.2 Gen 1 port	4	3
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	-	-
Form Factor	1U Rackmount	Tower
Abmessungen (HxBxT)	44 x 439 x 499	169 x 160 x 219
Gewicht (Netto)	6.53	2.01
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W PSU, 100 - 240V	90W Adapter, 100-240V
Power Consumption: Operating Mode, Typical	39.558 Tested with drives fully populated.	-
Lüfter	2 x 40mm, 12VDC	1 x 120mm, 12VDC
Kensington Security Slot	-	Yes



	TS-932PX	TS-832PX
		
	TS-932PX-4G	TS-832PX-4G
	AnnapurnaLabs Alpine AL324 ARM® Cortex-A57 quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL324 ARM® Cortex-A57 quad-core 1.7GHz processor
	64-bit ARM	64-bit ARM
	-	-
	Yes	Yes
	Yes	Yes
	-	-
	4 GB SODIMM DDR4 (1 x 4 GB)	4 GB SODIMM DDR4(1 x 4 GB)
	16 GB (1 x 16 GB)	16 GB (1 x 16 GB)
	1 x SO-DIMM DDR4	1 x SO-DIMM DDR4
	5x 3.5-inch+ 4 x 2.5-inch SATA 6Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	Optional via a PCIe adapter
	Yes	Yes
	-	-
	2 (also support 10M)	2 (also support 10M)
	-	-
	2 x 10GbE SFP+	2 x 10GbE SFP+
	-	-
	-	-
	-	1 Slot 1: PCIe Gen 2 x2 PCIe bandwidth limitations will restrict the NAS 10GbE performance.
	-	-
	3	3
	-	-
	-	-
	Tower	Tower
	182.7 x 224.6 x 224.1	188.2 x 329.3 x 280.8
	3.39	6.38
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	External, 120 W, AC 100 to 240 V	250W, 100-240V AC, 50/60Hz, 3.5A
	-	50.858 Tested with drives fully populated.
	1 x 140mm, 12VDC	System Lüfter: 2 x 120mm, 12VDC CPU Lüfter: 1 x 60mm
	Yes	Yes

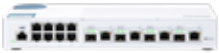

	TS-431KX	TS-431XeU
		
Model	TS-431KX-2G	TS-431XeU-2G
CPU	AnnapurnaLabs, an Amazon company Alpine AL214, 4-core, 1.7GHz	AnnapurnaLabs Alpine AL314 32-bit ARM® Cortex-A15 quad-core 1.7GHz processor
CPU Architecture	32-bit ARM	32-bit ARM
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes	Yes
Hardware-beschleunigte Transkodierung	-	-
System Memory	2 GB SODIMM DDR3 (1 x 2 GB)	2 GB SODIMM DDR3 (1 x 2 GB)
Maximum Memory	8 GB (1 x 8 GB)	8 GB (1 x 8 GB)
Memory Slot	1 x SO-DIMM DDR3	1 x SO-DIMM DDR3
Drive Bay	4x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	2	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	1 x 10GbE SFP+	1 x 10GbE SFP+
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	-	-
USB 2.0 port	-	-
USB 3.2 Gen 1 port	3	4
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	-	-
Form Factor	Tower	1U Rackmount
Abmessungen (HxBxT)	169 x 160 x 219	44 x 439 x 291
Gewicht (Netto)	2.01	4.15
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	90W Adapter, 100-240V	Open-frame 100W, Input: 100V-240V ~ / 3.5A, 50Hz-60Hz
Power Consumption: Operating Mode, Typical	26.7 Tested with drives fully populated.	30.99 Tested with drives fully populated.
Lüfter	1 x 120mm, 12VDC	System Lüfter: 3 x 40mm, 12VDC
Kensington Security Slot	Yes	Yes


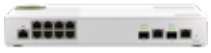
	TS-431XeU
	
	TS-431XeU-8G
	AnnapurnaLabs Alpine AL314 32-bit ARM® Cortex-A15 quad-core 1.7GHz processor
	32-bit ARM
	-
	Yes
	Yes
	-
	8 GB SODIMM DDR3 (1 x 8 GB)
	8 GB (1 x 8 GB)
	1 x SO-DIMM DDR3
	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes
	-
	Yes
	2
	-
	-
	1 x 10GbE SFP+
	-
	-
	-
	-
	4
	-
	-
	1U Rackmount
	44 x 439 x 291
	4.15
	0 - 40 °C (32°F - 104°F)
	Open-frame 100W, Input: 100V-240V ~ / 3.5A, 50Hz-60Hz
	30.99 Tested with drives fully populated.
	3 x 40mm, 12VDC
	Yes



	QSW-M1208-8C	QSW-M1204-4C
		
Model	QSW-M1208-8C	QSW-M1204-4C
Management Type	Web Managed	Web Managed
Management Port	1 x 1GbE RJ45	1 x 1GbE RJ45
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption	70W	70W
Input Power Type	AC	AC
Input Voltage Range	100-240VAC, 50/60Hz	100-240VAC, 50/60Hz
MAC Address Table	16K	16K
Total Non-Blocking Throughput	120Gbps	120Gbps
Switching Capacity	240Gbps	240Gbps
Management Interface	Web	Web
Console	RS232	RS232
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes
Lüfter	System: 4 x 4 cm (12V)	System: 4 x 4 cm (12V)
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet (IEEE 802.1p Class of Service)	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet (IEEE 802.1p Class of Service)
Number of Ports	12	12
10GbE SFP+	4	8
10GbE BASE-T (RJ45)	-	-
10GbE SFP+/RJ45 Combo Ports	8 Note: The 10GbE SFP+ ports are backward compatible with 1GbE SFP; the RJ45 (copper) combo port supports up to five speeds (10G/5G/2.5G/1G/100M).	4 Note: The 10GbE SFP+ ports are backward compatible with 1GbE SFP; the RJ45 (copper) combo port supports up to five speeds (10G/5G/2.5G/1G/100M).
2.5GbE (RJ45)	-	-
1GbE (RJ45)	-	-
Total PoE Ports	-	-
PoE PSE (802.3af, 15.4W)	-	-
PoE+ PSE (802.3at, 30W)	-	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	-	-
Total PoE Power Budget	-	-
Form Factor	-	-
Abmessungen (HxBxT)	46.65 x 285 x 236.6	46.65 x 285 x 236.6
Gewicht (Netto)	2.2	2.16



	QSW-M804-4C	QSW-1208-8C
		
	QSW-M804-4C	QSW-1208-8C
	Web Managed	Unmanaged
	1 x 1GbE RJ45	-
	Internal Power Supply Unit	Internal Open Frame
	70W	50W
	AC	AC
	100-240VAC, 50/60Hz	100-240VAC, 50/60 Hz
	16K	27K
	80Gbps	120Gbps
	160Gbps	240Gbps
	Web	-
	RS232	-
	Yes	Yes
	System: 4 x 4 cm (12V)	System: 2 x 4 cm (12V DC)
	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet (IEEE 802.1p Class of Service)	IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR IEEE 802.3x Full-duplex flow control IEEE 802.3az Energy Efficient Ethernet
	8	12
	4	"4 10G/1G"
	-	-
	4	8
	Note: The 10GbE SFP+ ports are backward compatible with 1GbE SFP; the RJ45 (copper) combo port supports up to five speeds (10G/5G/2.5G/1G/100M).	Note: The 10GbE SFP+ ports are backward compatible with 1GbE SFP; the RJ45 (copper) combo port supports up to five speeds (10G/5G/2.5G/1G/100M).
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	Desktop
	46.65 x 285 x 236.6	43, 285, 233
	2.12	2.15


	QSW-2104-2T	QSW-2104-2S
		
Model	QSW-2104-2T	QSW-2104-2S
Management Type	Unmanaged	Unmanaged
Management Port	-	-
Power Supply Description	Adapter	Adapter
Max. Power Consumption	12W	12W
Input Power Type	DC	DC
Input Voltage Range	12V/1A	12V/1A
MAC Address Table	16K	16K
Total Non-Blocking Throughput	30Gbps	30Gbps
Switching Capacity	60Gbps	60Gbps
Management Interface	-	-
Console	-	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes
Lüfter	-	-
Supported Standards	IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10GBase-T IEEE 802.3az Energy Efficient Ethernet (EEE)IEEE	IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10GBase-T IEEE 802.3az Energy Efficient Ethernet (EEE)IEEE SFP Transceiver 1000BASE-SX SFP Transceiver 1000BASE-LX SFP Transceiver 1000BASE-T Copper RJ45 GBIC
Number of Ports	6	6
10GbE SFP+	-	2
10GbE BASE-T (RJ45)	2	-
10GbE SFP+/RJ45 Combo Ports	-	-
2.5GbE (RJ45)	4	4
1GbE (RJ45)	-	-
Total PoE Ports	-	-
PoE PSE (802.3af, 15.4W)	-	-
PoE+ PSE (802.3at, 30W)	-	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	-	-
Total PoE Power Budget	-	-
Form Factor	Desktop	Desktop
Abmessungen (HxBxT)	34 x 180 x145	34 x 180 x145
Gewicht (Netto)	0.722	0.713

	QSW-M408-4C	QSW-M408-2C
		
	QSW-M408-4C	QSW-M408-2C
	Web Managed	Web Managed
	-	-
	Adapter	Adapter
	31.46 W	22.04 W
	AC	AC
	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
	16K	16K
	48Gbps	48Gbps
	96Gbps	96Gbps
	Web	Web
	RJ45	RJ45
	Yes	Yes
	PWM double ball bearing Lüfter x 1	PWM double ball bearing Lüfter x 1
	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service
	12	12
	-	2 10G/1G
	-	-
	4	2
	Note: The 10GbE SFP+ ports are backward compatible with 1GbE SFP; the RJ45 (copper) combo port supports up to five speeds (10G/5G/2.5G/1G/100M).	Note: The 10GbE SFP+ ports are backward compatible with 1GbE SFP; the RJ45 (copper) combo port supports up to five speeds (10G/5G/2.5G/1G/100M).
	-	-
	8	8
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	Desktop	Desktop
	42.5, 290, 127	42.5, 290, 127
	1.15	1.15

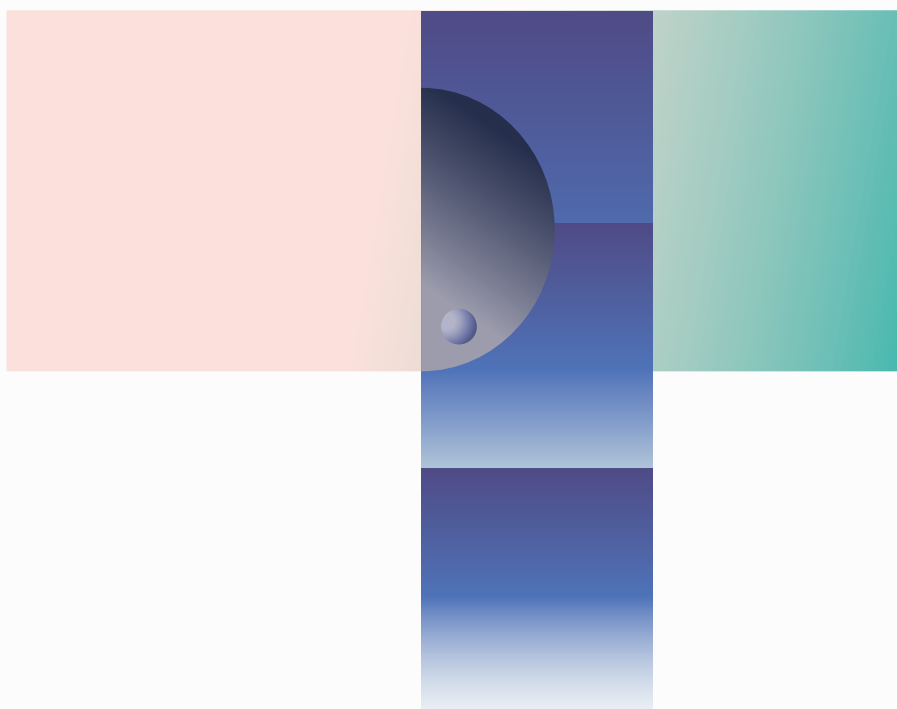
	QSW-M408S	QSW-M2108-2C
		
Model	QSW-M408S	QSW-M2108-2C
Management Type	Web Managed	Web Managed
Management Port	-	-
Power Supply Description	Adapter	Adapter
Max. Power Consumption	12.17 W	12.17 W
Input Power Type	AC	DC
Input Voltage Range	100-240VAC, 50/60 Hz	12V
MAC Address Table	16K	16K
Total Non-Blocking Throughput	48Gbps	40Gbps
Switching Capacity	96Gbps	80Gbps
Management Interface	Web	Web
Console	RJ45	RJ45
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes
Lüfter	PWM double ball bearing Lüfter x 1	PWM double ball bearing Lüfter x 1
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service
Number of Ports	12	10
10GbE SFP+	4 10G/1G	-
10GbE BASE-T (RJ45)	-	-
10GbE SFP+/RJ45 Combo Ports	-	2
2.5GbE (RJ45)	-	8
1GbE (RJ45)	8	-
Total PoE Ports	-	-
PoE PSE (802.3af, 15.4W)	-	-
PoE+ PSE (802.3at, 30W)	-	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	-	-
Total PoE Power Budget	-	-
Form Factor	Desktop	Desktop
Abmessungen (HxBxT)	42.5, 290, 127	42.5 x 290 x 127
Gewicht (Netto)	1.145	1.12



	QSW-M2108R-2C	QSW-M2116P-2T2S
		
	QSW-M2108R-2C	QSW-M2116P-2T2S
	Web Managed	Web Managed
	-	-
	Internal Power Supply Unit	Internal Power Supply Unit
	60W	350W
	AC	AC
	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
	16K	32K
	40Gbps	80Gbps
	80Gbps	160Gbps
	Web	Web
	RJ45	RJ45
	Yes	Yes
	PWM double ball bearing Lüfter x 1	PWM double ball bearing Lüfter x 2
	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet (IEEE 802.1p Class of Service)	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3an 10G BASE-T IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.3af/at/bt Power-over-Ethernet (PoE)
	10	20
	-	2
	-	2
	2	-
	8	16
	-	-
	-	18
	-	Port 1-16
	-	Port 1-16
	-	Port 19-20
	-	Port 1-16 (30W), Port 19-20 (90W)
	-	280W
	Desktop	Rackmount
	43.3 x 207 x 199.5	43.5 x 285 x 234.8
	1.2	2.08



	QSW-IM1200-8C	QSW-308-1C
		
Model	QSW-IM1200-8C	QSW-308-1C
Management Type	Web Managed	Unmanaged
Management Port	1 x 1GbE RJ45	-
Power Supply Description	Adapter	Adapter
Max. Power Consumption	67W	36W
Input Power Type	DC	AC
Input Voltage Range	9V-54V	100-240VAC, 50/60 Hz
MAC Address Table	16K	16K
Total Non-Blocking Throughput	120Gbps	38Gbps
Switching Capacity	240Gbps	76Gbps
Management Interface	Web	-
Console	RS232	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	-
Lüfter	-	Lüfterless
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet (IEEE 802.1p Class of Service)	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
Number of Ports	12	11
10GbE SFP+	4	2 10G only Note: Compatibility issues with the Intel X520 ethernet network adapter might cause the ports to randomly switch between port up and port down status.
10GbE BASE-T (RJ45)	-	-
10GbE SFP+/RJ45 Combo Ports	8	1 Note1: The 10GbE SFP+ ports are not backward compatible with 1GbE SFP; the RJ45 (copper) combo port supports up to five speeds (10G/5G/2.5G/1G/100M). Note2: Compatibility issues with the Intel X520 ethernet network adapter might cause the ports to randomly switch between port up and port down status.
2.5GbE (RJ45)	-	-
1GbE (RJ45)	-	8
Total PoE Ports	-	-
PoE PSE (802.3af, 15.4W)	-	-
PoE+ PSE (802.3at, 30W)	-	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	-	-
Total PoE Power Budget	-	-
Form Factor	Rackmount	Desktop
Abmessungen (HxBxT)	43.5 x 285 x 238	42.5, 290, 127
Gewicht (Netto)	4.58	0.77



	QSW-308S
	
	QSW-308S
	Unmanaged
	-
	Adapter
	36W
	AC
	100-240VAC, 50/60 Hz
	16K
	38Gbps
	76Gbps
	-
	-
	-
	Lüfterless
	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3an 10GBASE-T
	11
	3 10G only Note: Compatibility issues with the Intel X520 ethernet network adapter might cause the ports to randomly switch between port up and port down status.
	-
	-
	-
	8
	-
	-
	-
	-
	-
	-
	Desktop
	42.5, 290, 127
	0.74



2.5GbE ist nicht nur
für Büros sondern
auch für Haushalte







	TS-h686	TS-h886
		
Model	TS-h686-D1602-8G	TS-h886-D1622-16G
CPU	Intel® Xeon® D-1602 2-core/4-thread processor, up to 3.2 GHz	Intel® Xeon® D-1622 4-core/8-thread processor, up to 3.2 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	Yes
System Memory	8 GB UDIMM DDR4 ECC (2 x 4 GB)	16 GB UDIMM DDR4 ECC (2 x 8 GB)
Maximum Memory	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s + 2 x 2.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s + 2 x 2.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4 (also support 10M)	4 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter	Optional via an adapter
10 Gigabit Ethernet Port	-	-
25 Gigabit Ethernet Port	Optional via an adapter	Optional via an adapter
Thunderbolt Port	-	-
PCIe Slot	2 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x8	2 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x8
USB 2.0 port	-	-
USB 3.2 Gen 1 port	3	3
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	-	-
Form Factor	Tower	Tower
Abmessungen (HxBxT)	231.9 x 224.9 x 319.8	231.9 x 292.9 x 319.8
Gewicht (Netto)	7.27	8.5
Betriebstemperatur	0 - 40°C (32°F - 104°F)	0 - 40°C (32°F - 104°F)
Power Supply Unit	250W PSU, 100~240V	250W PSU, 100~240V
Power Consumption: Operating Mode, Typical	61.115 Tested with drives fully populated.	75.79 Tested with drives fully populated.
Lüfter	System Lüfter: 1 x 97mm, 12VDC CPU Lüfter: 1 x 90mm, 12VDC	System Lüfter: 2 x 80mm, 12VDC CPU Lüfter: 1 x 90mm, 12VDC
Kensington Security Slot	Yes	Yes



	TS-364	HS-264
		
	TS-364-4G	HS-264
	Intel® Celeron® N5105/N5095/N5095A 4-core/4-thread processor, burst up to 2.9 GHz	Intel Celeron N5105 4 core 2.0GHz, burst up to 2.9GHz
	64-bit x86	64-bit x86
	Intel® UHD Graphics	Intel® UHD Graphics
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Yes	Yes
	4 GB SODIMM DDR4 (1 x 4 GB)	8 GB DDR4, not expandable
	16 GB (2 x 8 GB)	8 GB DDR4, not expandable
	2 x SO-DIMM DDR4	-
	3 x 3.5-inch SATA 6Gb/s, 3Gb/s	2 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	2 x M.2 2280 PCIe Gen 3 x2 slots	-
	Yes	Yes
	-	-
	1	2 (also support 10M)
	Optional via an adapter	-
	-	-
	-	-
	-	-
	-	-
	-	-
	1	2 x Type A
	2 x Type-A	2 x Type A
	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	2 x HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz)
	Tower	Tower
	-	41.3 x 302 x 220
	-	1.56
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	65W adapter, 100 - 240V	60W adapter, 100-240V
	-	-
	1 x 92mm, 12VDC	-
	Yes	Yes



	TBS-464	TS-1673AU-RP
		
Model	TBS-464-8G	TS-1673AU-RP-16G
CPU	Intel® Celeron® N5105 4-core/4-thread processor, burst up to 2.9GHz	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	Optional via a PCIe graphics card
System Memory	8 GB DDR4, not expandable	16 GB UDIMM DDR4 (1 x 16 GB)
Maximum Memory	8 GB DDR4, not expandable	64 GB (2 x 32 GB)
Memory Slot	-	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
Drive Bay	-	16 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	-	Yes
M.2 slot	4 x M.2 2280 NVMe Gen3 x2 slots The system is shipped without SSD. For the SSD compatibility list, please visit https://www.qnap.com/compatibility/	Optional via a QNAP QM2 PCIe card
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	Optional via a network adapter
10 Gigabit Ethernet Port	-	Optional via a network adapter
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	-	2 x PCIe Gen3 x4
USB 2.0 port	3	-
USB 3.2 Gen 1 port	2	1 x Type-A
USB 3.2 Gen 2 (10Gbps) Port	-	2 x Type-C 1 x Type-A
HDMI Output	2, HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz)	Optional via a PCIe graphics card
Form Factor	Set-top design	3U Rackmount
Abmessungen (HxBxT)	30 x 230 x 165	132 x 482 x 425
Gewicht (Netto)	0.8	12
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	External Power Adapter, 65W, 100-240V	550W (x2), 100-240V AC, 50-60Hz, 7-3.5A
Power Consumption: Operating Mode, Typical	16.52 Tested with drives fully populated.	97.34 Tested fully populated with WD10EFRX hard drives.
Lüfter	1 x system Lüfter	3 x 80mm, 12VDC
Kensington Security Slot	Yes	-

	TS-1273AU-RP	TS-873AU-RP
		
	TS-1273AU-RP-8G	TS-873AU-RP-4G
	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
	64-bit x86	64-bit x86
	-	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Optional via a PCIe graphics card	Optional via a PCIe graphics card
	8 GB UDIMM DDR4 (1 x 8 GB)	4 GB UDIMM DDR4 (1 x 4 GB)
	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.
	12 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	8 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
	Yes	Yes
	Optional via a QNAP QM2 PCIe card	Optional via a QNAP QM2 PCIe card
	Yes	Yes
	-	-
	-	-
	Optional via a network adapter	Optional via a network adapter
	Optional via a network adapter	Optional via a network adapter
	-	-
	-	-
	2 x PCIe Gen3 x4	2 x PCIe Gen3 x4 (Units manufactured before 2021/01/09 are 1 x PCIe Gen3 x8 slot and can be upgraded to 2 x PCIe Gen3 x4 slots with the purchase of a BRKT-RISER-2P-2U adapter)
	-	-
	1 x Type-A	1 x Type-A
	2 x Type-C 1 x Type-A	2 x Type-C 1 x Type-A
	Optional via a PCIe graphics card	Optional via a PCIe graphics card
	2U Rackmount	2U Rackmount
	89 x 482 x 425	89 x 482 x 425
	9.69	9.15
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	300W (x2) PSU, 100 - 240V	300W PSU(x2), 100 - 240V
	78.92 Tested fully populated with WD10EFRX hard drives.	61.25 Tested fully populated with WD10EFRX hard drives.
	2 x 80mm, 12VDC	2 x 80mm, 12VDC
	-	-

	TS-873AU	TVS-675
		
Model	TS-873AU-4G	TVS-675-8G
CPU	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	ZhaoXin KX-U6580 8-core 2.5GHz processor
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	ZhaoXin C-960 Graphics
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Optional via a PCIe graphics card	Yes
System Memory	4 GB UDIMM DDR4 (1 x 4 GB)	8 GB SODIMM DDR4 (1 x 8 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x Long-DIMM DDR4 Support ECC memory For dual-DIMM configuration, you must use a pair of identical DDR4 modules.	2 x SO-DIMM DDR4 For dual-DIMM configuration, you must use a pair of identical DDR4 modules.
Drive Bay	8 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	6 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 slot	Optional via a QNASD QM2 PCIe card	2 x M.2 2280 PCIe Gen 3 x1 or SATA 6Gb/s slots
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	2
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a network adapter	Optional via an adapter
10 Gigabit Ethernet Port	Optional via a network adapter	Optional via an adapter
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 x PCIe Gen3 x4 (Units manufactured before 2021/01/09 are 1 x PCIe Gen3 x8 slot and can be upgraded to 2 x PCIe Gen3 x4 slots with the purchase of a BRKT-RISER-2P-2U adapter)	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4
USB 2.0 port	-	-
USB 3.2 Gen 1 port	1 x Type-A	2
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C 1 x Type-A	2 x Type-A
HDMI Output	Optional via a PCIe graphics card	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	2U Rackmount	Tower
Abmessungen (HxBxT)	89 x 482 x 425	188.2 x 263.9 x 280.8
Gewicht (Netto)	8.04	6.2
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W PSU, 100 - 240V	250W, 100-240V AC, 50/60Hz, 3.5A
Power Consumption: Operating Mode, Typical	55.01 Tested fully populated with WD10EFRX hard drives.	'60.794
Lüfter	2 x 80mm, 12VDC	3 x 80mm, 12VDC
Kensington Security Slot	-	Yes

	TS-873A	TS-673A
		
	TS-873A-8G	TS-673A-8G
	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
	64-bit x86	64-bit x86
	Optional via a PCIe adapter	Optional via a PCIe adapter
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Optional via a PCIe adapter	Optional via a PCIe adapter
	8 GB SO-DIMM DDR4 (1 x 8 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)
	64GB (2 x 32 GB)	64GB (2 x 32 GB)
	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.
	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP])(http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.	2 x M.2 2280 PCIe Gen3 x1 slots
	Yes	Yes
	-	-
	2	2
	Optional via a PCIe adapter	Optional via a PCIe adapter
	Optional via a PCIe adapter	Optional via a PCIe adapter
	-	-
	-	-
	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
	-	-
	-	-
	3 x Type-A USB 3.2 Gen 2 10Gbps 1 x Type-C USB 3.2 Gen 1 5Gbps	3 x Type-A USB 3.2 Gen 2 10Gbps 1 x Type-C USB 3.2 Gen 1 5Gbps
	Optional via a PCIe adapter	Optional via a PCIe adapter
	Tower	Tower
	188.2 x 329.3 x 280.8	188.2 x 264.3 x 280.8
	6.76	5.78
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W, 100-240V AC, 50-60Hz, 3.5A	250W, 100-240V AC, 50-60Hz, 3.5A
	54.067 Tested with drives fully populated.	45.898 Tested with drives fully populated.
	System Lüfter: 2 x 120mm	System Lüfter: 2 x 92mm
	Yes	Yes



	TS-473A	TS-431P3
		
Model	TS-473A-8G	TS-431P3-4G
CPU	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz
CPU Architecture	64-bit x86	32-bit ARM
Graphic Processors	Optional via a PCIe adapter	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes
Hardware-beschleunigte Transkodierung	Optional via a PCIe adapter	-
System Memory	8 GB SO-DIMM DDR4 (1 x 8 GB)	4GB SO-DIMM DDR3
Maximum Memory	64 GB (2 x 32 GB)	8GB DDR3
Memory Slot	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	1 x SO-DIMM DDR3
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s	4x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.
M.2 slot	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP](http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.	-
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	1
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2	1
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	-
10 Gigabit Ethernet Port	Optional via a PCIe adapter	-
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	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
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	3
USB 3.2 Gen 2 (10Gbps) Port	3 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps 1 x Type-C USB 3.2 Gen 1 5V/1A 5Gbps	-
HDMI Output	Optional via a PCIe adapter	-
Form Factor	Tower	Tower
Abmessungen (HxBxT)	188.2 x 199.3 x 280.8	169 x 160 x 219
Gewicht (Netto)	5.03	2.01
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V AC, 50-60Hz, 3.5A	90W Adapter, 100-240V
Power Consumption: Operating Mode, Typical	29.792 Tested with drives fully populated.	26.7 Tested with drives fully populated.
Lüfter	System Lüfter: 1 x 120mm CPU Lüfter: 1 x 60mm	1 x 120mm, 12VDC
Kensington Security Slot	-	Yes



	TS-431P3	TS-231P3
		
	TS-431P3-2G	TS-231P3-4G
	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz
	32-bit ARM	32-bit ARM
	-	-
	Yes	Yes
	Yes	Yes
	-	-
	2GB SO-DIMM DDR3	4GB SO-DIMM DDR3
	8GB DDR3	8GB DDR3
	1 x SO-DIMM DDR3	1 x SO-DIMM DDR3
	4x 3.5-inch SATA 6Gb/s, 3Gb/s	2 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	1	1
	1	1
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	3	3
	-	-
	-	-
	Tower	Tower
	169 x 160 x 219	169 x 102 x 219
	2.01	1.46
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	90W Adapter, 100-240V	60W/65W Adapter, 100-240V
	26.7 Tested with drives fully populated.	15.6 Tested with drives fully populated.
	1 x 120mm, 12VDC	1 x70mm, 12VDC
	Yes	Yes

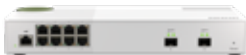

TS-231P3



Model	TS-231P3-2G
CPU	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz
CPU Architecture	32-bit ARM
Graphic Processors	-
Floating Point Unit	Yes
Encryption Engine	Yes
Hardware-beschleunigte Transkodierung	-
System Memory	4GB SO-DIMM DDR3
Maximum Memory	8GB DDR3
Memory Slot	1 x SO-DIMM DDR3
Drive Bay	2 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes
M.2 slot	-
SSD-Cache-Beschleunigung Unterstützung	Yes
Gigabit Ethernet Port (RJ45)	1
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	1
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-
10 Gigabit Ethernet Port	-
25 Gigabit Ethernet Port	-
Thunderbolt Port	-
PCIe Slot	-
USB 2.0 port	-
USB 3.2 Gen 1 port	3
USB 3.2 Gen 2 (10Gbps) Port	-
HDMI Output	-
Form Factor	Tower
Abmessungen (HxBxT)	169 x 102 x 219
Gewicht (Netto)	1.46
Betriebstemperatur	0 - 40 °C (32°F - 104°F)
Power Supply Unit	60W/65W Adapter, 100-240V
Power Consumption: Operating Mode, Typical	15.6 Tested with drives fully populated.
Lüfter	1 x70mm, 12VDC
Kensington Security Slot	Yes

	QSW-1105-5T	QSW-2104-2T
		
Model	QSW-1105-5T	QSW-2104-2T
Management Type	Unmanaged	Unmanaged
Management Port	-	-
Power Supply Description	Adapter	Adapter
Max. Power Consumption	12 W	12 W
Input Power Type	DC	DC
Input Voltage Range	12V	12V/1A
MAC Address Table	16K	16K
Total Non-Blocking Throughput	12.5Gbps	30Gbps
Switching Capacity	25Gbps	60Gbps
Management Interface	-	-
Console	-	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	-	Yes
Lüfter	Lüfterless	-
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5GBase-T IEEE 802.3x Full-Duplex Flow Control	IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10GBase-T IEEE 802.3az Energy Efficient Ethernet (EEE)IEEE
Number of Ports	5	6
10GbE SFP+	-	-
10GbE BASE-T (RJ45)	-	2
10GbE SFP+/RJ45 Combo Ports	-	-
2.5GbE (RJ45)	5	4
1GbE (RJ45)	-	-
Total PoE Ports	-	-
PoE PSE (802.3af, 15.4W)	-	-
PoE+ PSE (802.3at, 30W)	-	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	-	-
Total PoE Power Budget	-	-
Form Factor	Desktop	Desktop
Abmessungen (HxBxT)	34 x 180 x 145	34 x 180 x145
Gewicht (Netto)	0.577	0.722

	QSW-2104-2S	QSW-M2108-2C
		
Model	QSW-2104-2S	QSW-M2108-2C
Management Type	Unmanaged	Web Managed
Management Port	-	-
Power Supply Description	Adapter	Adapter
Max. Power Consumption	12 W	12.17 W
Input Power Type	DC	DC
Input Voltage Range	12V/1A	12V
MAC Address Table	16K	16K
Total Non-Blocking Throughput	30Gbps	40Gbps
Switching Capacity	60Gbps	80Gbps
Management Interface	-	Web
Console	-	RJ45
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes
Lüfter	-	PWM double ball bearing Lüfter x 1
Supported Standards	IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10GBase-T IEEE 802.3az Energy Efficient Ethernet (EEE)IEEE SFP Transceiver 1000BASE-SX SFP Transceiver 1000BASE-LX SFP Transceiver 1000BASE-T Copper RJ45 GBIC	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet (IEEE 802.1p Class of Service)
Number of Ports	6	10
10GbE SFP+	2	-
10GbE BASE-T (RJ45)	-	-
10GbE SFP+/RJ45 Combo Ports	-	2
2.5GbE (RJ45)	4	8
1GbE (RJ45)	-	-
Total PoE Ports	-	-
PoE PSE (802.3af, 15.4W)	-	-
PoE+ PSE (802.3at, 30W)	-	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	-	-
Total PoE Power Budget	-	-
Form Factor	Desktop	Desktop
Abmessungen (HxBxT)	34 x 180 x145	42.5 x 290 x 127
Gewicht (Netto)	0.713	1.12

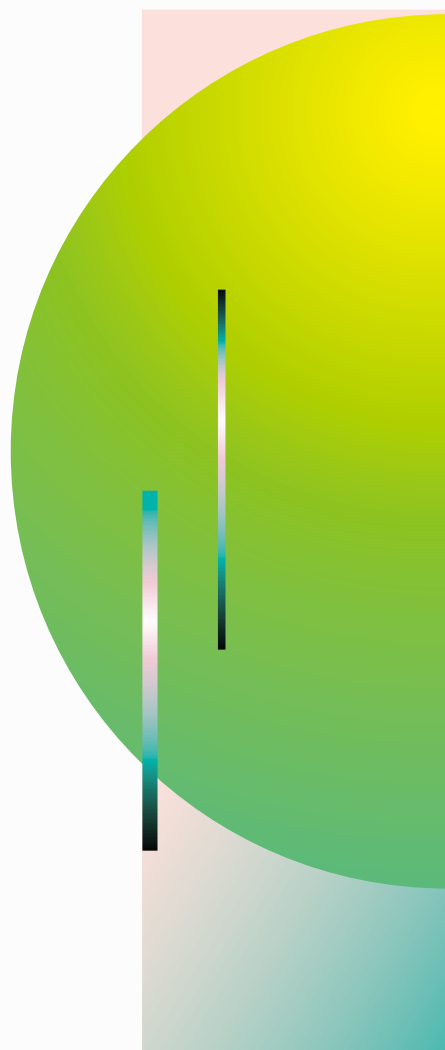
	QSW-M2108-2S	QSW-M2108R-2C
		
	QSW-M2108-2S	QSW-M2108R-2C
	Web Managed	Web Managed
	-	-
	Adapter	Internal Power Supply Unit
	12.17 W	60W
	DC	AC
	12V	100-240VAC, 50/60 Hz
	16K	16K
	40Gbps	40Gbps
	80Gbps	80Gbps
	Web	Web
	RJ45	RJ45
	Yes	Yes
	PWM double ball bearing Lüfter x 1	PWM double ball bearing Lüfter x 1
	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-T IEEE 802.3an 10G BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet (IEEE 802.1p Class of Service)
	10	10
	2	-
	-	-
	-	2
	8	8
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	Desktop	Desktop
	42.5 x 290 x 127	43.3 x 207 x 199.5
	1.12	1.2



QSW-M2116P-2T2S



Model	QSW-M2116P-2T2S
Management Type	Web Managed
Management Port	-
Power Supply Description	Internal Power Supply Unit
Max. Power Consumption	350W
Input Power Type	AC
Input Voltage Range	100-240VAC, 50/60 Hz
MAC Address Table	32K
Total Non-Blocking Throughput	80Gbps
Switching Capacity	160Gbps
Management Interface	Web
Console	RJ45
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes
Lüfter	PWM double ball bearing Lüfter x 2
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3an 10G BASE-T IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.3af/at/bt Power-over-Ethernet (PoE)
Number of Ports	20
10GbE SFP+	2
10GbE BASE-T (RJ45)	2
10GbE SFP+/RJ45 Combo Ports	-
2.5GbE (RJ45)	16
1GbE (RJ45)	-
Total PoE Ports	18
PoE PSE (802.3af, 15.4W)	Port 1-16
PoE+ PSE (802.3at, 30W)	Port 1-16
PoE++ PSE (802.3bt, 90W)	Port 19-20
PoE Power Output	Port 1-16 (30W), Port 19-20 (90W)
Total PoE Power Budget	280W
Form Factor	Rackmount
Abmessungen (HxBxT)	43.5 x 285 x 234.8
Gewicht (Netto)	2.08

Durchschlagende
Leistung und
hervorragende
Konnektivität
mit Thunderbolt NAS



	TVS-h1688X	TVS-h1288X
		
Model	TVS-h1688X-W1250-32G	TVS-h1288X-W1250-16G
CPU	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics P630	Intel® UHD Graphics P630
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	Yes
System Memory	32GB ECC UDIMM DDR4 (2 x 16 GB)	16 GB ECC UDIMM DDR4 (2 x 8 GB)
Maximum Memory	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4 For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	Yes	Yes
M.2 Slot	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4 (also support 10M)	4 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter	Optional via an adapter
10 Gigabit Ethernet Port	2 x 10GBASE-T (10G/1G)	2 x 10GBASE-T (10G/1G)
25 Gigabit Ethernet Port	Optional via an adapter	Optional via an adapter
Thunderbolt Port	Optional via the QXP-T32P 2-port Thunderbolt 3 PCIe adapter	Optional via the QXP-T32P 2-port Thunderbolt 3 PCIe adapter
PCIe Slot	3 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 2-port 10GbE network adapter.	3 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x4 Slot 3: PCIe Gen3 x4 *Slot 1 is preinstalled with a 2-port 10GbE network adapter.
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	-
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C 4 x Type-A	2 x Type-C 3 x Type-A
HDMI Output	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)
Form Factor	Tower	Tower
Abmessungen (HxBxT)	303.84 x 369.89 x 319.8	234.6 x 369.9 x 319.8
Gewicht (Netto)	13.41	11.27
Betriebstemperatur	0 - 40°C (32°F - 104°F)	0 - 40°C (32°F - 104°F)
Power Supply Unit	550W PSU, 100~240V	550W PSU, 100~240V
Power Consumption: Operating Mode, Typical	108.67 W Tested with drives fully populated	97.492 Tested with drives fully populated.
Lüfter	System Lüfter: 3 x 80mm, 12VDC CPU Lüfter: 2 x 97mm, 12VDC	System Lüfter: 3 x 80mm, 12VDC CPU Lüfter: 2 x 97mm, 12VDC
Kensington Security Slot	Yes	Yes

TVS-472XTT



TVS-472XT-i5-4G

TVS-472XT-i3-4G

Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz

Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor

64-bit x86

64-bit x86

Intel® UHD Graphics 630

Intel® UHD Graphics 630

Yes

Yes

Yes (AES-NI)

Yes (AES-NI)

Yes

Yes

4 GB SODIMM DDR4 (1 x 4 GB)

4 GB SODIMM DDR4 (1 x 4 GB)

64 GB (2 x 32 GB)

64 GB (2 x 32 GB)

2 x SO-DIMM DDR4

2 x SO-DIMM DDR4

4 x 3.5-inch SATA 6Gb/s, 3Gb/s

4 x 3.5-inch SATA 6Gb/s, 3Gb/s

Yes

Yes

2 x M.2 2280 PCIe Gen3 x2 slots

2 x M.2 2280 PCIe Gen3 x2 slots

Yes

Yes

2

2

-

-

-

-

1 x 10GBASE-T (10G/5G/2.5G/1G/100M)

1 x 10GBASE-T (10G/5G/2.5G/1G/100M)

-

-

2 (Thunderbolt™ 3)

2 (Thunderbolt™ 3)

2
Slot 1: PCIe Gen 3 x16 (CPU)
Slot 2: PCIe Gen 3 x4 (PCH)
Slot 1 is preinstalled with a Thunderbolt 3 adapter

2
Slot 1: PCIe Gen 3 x16 (CPU)
Slot 2: PCIe Gen 3 x4 (PCH)
Slot 1 is preinstalled with a Thunderbolt 3 adapter

-

-

1

1

2 x Type-C USB 3.2 Gen 2 10Gbps
2 x Type-A USB 3.2 Gen 2 10Gbps

2 x Type-C USB 3.2 Gen 2 10Gbps
2 x Type-A USB 3.2 Gen 2 10Gbps

1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)

1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)

Tower

Tower

188.2 x 199.3 x 279.6

188.2 x 199.3 x 279.6

5.4

5.4

0 - 40 °C (32°F - 104°F)

0 - 40 °C (32°F - 104°F)

250W, 100-240V

250W, 100-240V

37.32
Tested fully populated with WD10EFRX hard drives."



37.32
Tested fully populated with WD10EFRX hard drives.

System Lüfter: 1 x 120mm, 12VDC
CPU Lüfter: 2 x 60mm blower Lüfter

System Lüfter: 1 x 120mm, 12VDC
CPU Lüfter: 2 x 60mm blower Lüfter

Yes

Yes

	TVS-472XT	TVS-672XT
		
Model	TVS-472XT-PT-4G	TVS-672XT-i5-8G
CPU	Intel® Pentium G5400T 2-core/4-thread 3.1 GHz Processor	Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics 610	Intel® UHD Graphics 630
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes	Yes
System Memory	4 GB SODIMM DDR4 (2 x 2 GB)	8 GB SODIMM DDR4 (2 x 4 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes
M.2 Slot	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes
Gigabit Ethernet Port (RJ45)	2	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	2 (Thunderbolt™ 3)	2 (Thunderbolt™ 3)
PCIe Slot	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter
USB 2.0 port	-	-
USB 3.2 Gen 1 port	1	1
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	Tower	Tower
Abmessungen (HxBxT)	188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6
Gewicht (Netto)	5.4	6.553
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	250W, 100-240V
Power Consumption: Operating Mode, Typical	37.32 Tested fully populated with WD10EFRX hard drives.	45.6 Tested fully populated with WD10EFRX hard drives.
Lüfter	System Lüfter: 1 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 2 x 92mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
Kensington Security Slot	Yes	Yes

	TVS-672XT	TVS-872XT
		
	TVS-672XT-i3-8G	TVS-872XT-i5-16G
	Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor	Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz
	64-bit x86	64-bit x86
	Intel® UHD Graphics 630	Intel® UHD Graphics 630
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Yes	Yes
	8 GB SODIMM DDR4 (2 x 4 GB)	16 GB SODIMM DDR4 (2 x 8 GB)
	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
	Yes	Yes
	2	2
	-	-
	-	-
	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
	-	-
	2 (Thunderbolt™ 3)	2 (Thunderbolt™ 3)
	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH) Slot 1 is preinstalled with a Thunderbolt 3 adapter
	-	-
	1	1
	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
	Tower	Tower
	188.2 x 264.3 x 279.6	188.2 x 329.3 x 279.6
	6.553	7.06
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W, 100-240V	250W, 100-240V
	45.6 Tested fully populated with WD10EFRX hard drives.	65.03 Tested fully populated with WD10EFRX hard drives.
	System Lüfter: 2 x 92mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 2 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
	Yes	Yes



TS-453BT3







Model	TS-453BT3-8G
CPU	Intel® Celeron® J3455 4-core/4-thread processor, burst up to 2.3 GHz
CPU Architecture	64-bit x86
Graphic Processors	Intel® HD Graphics 500
Floating Point Unit	Yes
Encryption Engine	Yes (AES-NI)
Hardware-beschleunigte Transkodierung	Yes
System Memory	8 GB SO-DIMM DDR3L (2 x 4 GB)
Maximum Memory	8 GB (2 x 4 GB)
Memory Slot	2 x SO-DIMM DDR3L For dual-DIMM configuration, you must use a pair of identical DDR3L modules.
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.*
M.2 Slot	2 x M.2 2280 SATA 6Gb/s SSD slots (pre-installed QM2 PCIe card) The M.2 SSD is not included as standard.
SSD-Cache-Beschleunigung Unterstützung	Yes
Gigabit Ethernet Port (RJ45)	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-
10 Gigabit Ethernet Port	1 x 10GBASE-T (10G/5G/2.5G/1G/100M) Pre-installed QM2 PCIe card
25 Gigabit Ethernet Port	-
Thunderbolt Port	2 (Thunderbolt™ 3)
PCIe Slot	1 x PCIe Gen 2 (x2), pre-installed with a QM2 expansion card (QM2-2S10G1TB) that includes a 10GbE 10GBASE-T port and two M.2 SATA SSD slots. The M.2 SATA SSD slots on this QM2 card only support M.2 2280 SATA 6Gb/s SSD, please check the compatibilities before purchase. PCIe bandwidth limitations will restrict the NAS 10GbE performance.
USB 2.0 port	-
USB 3.2 Gen 1 port	5
USB 3.2 Gen 2 (10Gbps) Port	Optional via a PCIe adapter (need to replace the pre-installed QM2 card)
HDMI Output	2, HDMI 1.4b (up to 3840 x 2160 @ 30Hz)
Form Factor	Tower
Abmessungen (HxBxT)	168 x 170 x 226
Gewicht (Netto)	2.51
Betriebstemperatur	0 ~ 40°C (32°F ~ 104°F)
Power Supply Unit	120W adapter, 100-240V
Power Consumption: Operating Mode, Typical	38.101
Lüfter	System: 1 x 120mm
Kensington Security Slot	Yes

Erstellen Sie ganz
einfach Ihre
persönliche Cloud
und Zugriff von überall



	TS-130	TS-230	
			
Model	TS-130	TS-230	
CPU	Realtek RTD1295 quad-core 1.4GHz processor	Realtek RTD1296 quad-core 1.4GHz processor	
CPU Architecture	64-bit ARM	64-bit ARM	
Graphic Processors	-	-	
Floating Point Unit	Yes	Yes	
Encryption Engine	Yes	Yes	
Hardware-beschleunigte Transkodierung	-	Yes	
System Memory	1 GB DDR4, not expandable	2 GB DDR4, not expandable Note: Reserves some RAM for use as shared graphics memory.	
Maximum Memory	1 GB DDR4, not expandable	2 GB DDR4, not expandable	
Memory Slot	-	-	
Drive Bay	1 x 3.5-inch SATA 6Gb/s, 3Gb/s	2 x 3.5-inch SATA 6Gb/s, 3Gb/s	
Hot-swappable	-	Yes	
M.2 Slot	-	-	
SSD-Cache-Beschleunigung Unterstützung	-	-	
Gigabit Ethernet Port (RJ45)	1	1	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via the QNA-UC5G1T USB to 5GbE network adapter	-	
10 Gigabit Ethernet Port	-	-	
25 Gigabit Ethernet Port	-	-	
Thunderbolt Port	-	-	
PCIe Slot	-	-	
USB 2.0 port	1	1	
USB 3.2 Gen 1 port	1	2	
USB 3.2 Gen 2 (10Gbps) Port	-	-	
HDMI Output	-	-	
Form Factor	Tower	Tower	
Abmessungen (HxBxT)	187.5, 66.1, 157.6	188.64, 90.18, 156.26	
Gewicht (Netto)	0.61	1.98	
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)	
Power Supply Unit	36W Adapter, 100-240V	External, 65 W, AC 100 to 240 V	
Power Consumption: Operating Mode, Typical	7.29 Tested with drives fully populated.	12.277 Tested with drives fully populated.	
Lüfter	1 x 50mm, 12VDC	1 x 80mm, 12VDC	
Kensington Security Slot	-	-	

	TS-131K	TS-231K
		
	TS-131K	TS-231K
	AnnapurnaLabs, an Amazon company Alpine AL214, 4-core, 1.7GHz	AnnapurnaLabs, an Amazon company Alpine AL214, 4-core, 1.7GHz
	32-bit ARM	32-bit ARM
	-	-
	Yes	Yes
	Yes	Yes
	-	-
	1GB DDR3	1GB DDR3
	1GB DDR3	1GB DDR3
	-	-
	1 x 3.5-inch SATA 6Gb/s, 3Gb/s	2 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes	Yes
	-	-
	Yes	Yes
	1	2
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	-	-
	2	2
	-	-
	-	-
	Tower	Tower
	169, 73, 219	169, 102, 219
	1.19	1.46
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	36W Adapter, 100-240V	60W/65W Adapter, 100-240V
	11.62 Tested with drives fully populated.	15.6 Tested with drives fully populated.
	1 x 50mm, 12VDC	1 x 7 cm smart Lüfter (12V DC)
	Yes	Yes

	TS-431K	TS-451D2		
				
Model	TS-431K	TS-451D2-4G	TS-451D2-2G	
CPU	AnnapurnaLabs, an Amazon company Alpine AL214, 4-core, 1.7GHz		Intel® Celeron® J4025 2-core/2-thread processor, burst up to 2.9 GHz	
CPU Architecture	32-bit ARM		64-bit x86	
Graphic Processors	-		Intel® HD Graphics 600	
Floating Point Unit	Yes		Yes	
Encryption Engine	Yes		Yes (AES-NI)	
Hardware-beschleunigte Transkodierung	-		Yes	
System Memory	1GB DDR3		4 GB SO-DIMM DDR4 (1 x 4 GB)	2 GB SO-DIMM DDR4 (1 x 2 GB)
Maximum Memory	1GB DDR3		8 GB (2 x 4GB)	
Memory Slot	-		2 x SO-DIMM DDR4 For dual-DIMM configuration, you must use a pair of identical DDR4 modules.	
Drive Bay	4x 3.5-inch SATA 6Gb/s, 3Gb/s		4 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Hot-swappable	Yes		Yes	
M.2 Slot	-		-	
SSD-Cache-Beschleunigung Unterstützung	Yes		Yes	
Gigabit Ethernet Port (RJ45)	2		2	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-		-	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-		-	
10 Gigabit Ethernet Port	-		-	
25 Gigabit Ethernet Port	-		-	
Thunderbolt Port	-		-	
PCIe Slot	-		-	
USB 2.0 port	-		-	
USB 3.2 Gen 1 port	2		4	
USB 3.2 Gen 2 (10Gbps) Port	-		-	
HDMI Output	-		1, HDMI 2.0 (up to 4096 x 2160 @ 60Hz)	
Form Factor	Tower		Tower	
Abmessungen (HxBxT)	169 x 160 x 219		165.3 x 160 x 219.4	
Gewicht (Netto)	2.01		2.09	
Betriebstemperatur	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	
Power Supply Unit	90W Adapter, 100-240V		External Power Adapter, 90W, AC 100-240 V	
Power Consumption: Operating Mode, Typical	26.57 Tested with drives fully populated.		-	
Lüfter	1 x 120mm, 12VDC		1 x 120mm, 12VDC	
Kensington Security Slot	Yes		Yes	

TS-251D



TS-251D-4G

TS-251D-2G

Intel® Celeron® J4025/J4005 2-core/2-thread processor, burst up to 2.9/2.7 GHz

64-bit x86

Intel® HD Graphics 600

Yes

Yes (AES-NI)

Yes

4 GB SO-DIMM DDR4 (1 x 4 GB)

2 GB SO-DIMM DDR4 (1 x 2 GB)

8 GB (2 x 4GB)

2 x SO-DIMM DDR4
For dual-DIMM configuration, you must use a pair of identical DDR4 modules.

2 x 3.5-inch SATA 6Gb/s, 3Gb/s
The system is shipped without HDD.
For the HDD compatibility list, please visit <https://www.qnap.com/compatibility/>

Yes

Optional via a QM2 PCIe adapter

Yes

1
Expandable with an optional PCIe adapter

-

Expandable with an optional PCIe adapter

Expandable with an optional PCIe adapter

-

-

1
Slot 1: PCIe Gen 2 x4
PCIe bandwidth limitations will restrict the NAS 10GbE performance.

3

2

Optional via a PCIe expansion card

1, HDMI 2.0

Tower

168 x 105 x 226

1.48



0 - 40 °C (32°F - 104°F)



External Power Adapter, 65W, 100-240V

15.25
Tested with drives fully populated.

1 x 70mm

Yes

	HS-264	HS-453DX	
			
Model	HS-264	HS-453DX-8G	
CPU	Intel Celeron N5105 4 core 2.0GHz, burst up to 2.9GHz	Intel® Celeron® J4115 4-core/4-thread processor, burst up to 2.5 GHz	
CPU Architecture	64-bit x86	64-bit x86	
Graphic Processors	Intel® UHD Graphics	Intel® HD Graphics 600	
Floating Point Unit	Yes	Yes	
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)	
Hardware-beschleunigte Transkodierung	Yes	Yes	
System Memory	8 GB DDR4, not expandable	8 GB SO-DIMM DDR4 (2 x 4 GB)	
Maximum Memory	8 GB DDR4, not expandable	8 GB (2 x 4 GB)	
Memory Slot	-	2 x SO-DIMM DDR4 For dual-DIMM configuration, you must use a pair of identical RAM modules.	
Drive Bay	2 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	2 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	
Hot-swappable	Yes	Yes	
M.2 Slot	-	2 x M.2 2280 SATA 6Gb/s slots	
SSD-Cache-Beschleunigung Unterstützung	Yes	Yes	
Gigabit Ethernet Port (RJ45)	-	1	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	-	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-	
10 Gigabit Ethernet Port	-	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	
25 Gigabit Ethernet Port	-	-	
Thunderbolt Port	-	-	
PCIe Slot	-	-	
USB 2.0 port	-	2	
USB 3.2 Gen 1 port	2 x Type A	3 (1 x USB-C, 2 x USB-A)	
USB 3.2 Gen 2 (10Gbps) Port	2 x Type A	-	
HDMI Output	2 x HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz)	2, HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz) + HDMI 1.4b (up to 3840 x 2160 @ 30Hz)	
Form Factor	Tower	Set-top design	
Abmessungen (HxBxT)	41.3 x 302 x 220	43.8 x 404 x 220	
Gewicht (Netto)	1.56	2.4	
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 35 °C (32°F - 95°F)	
Power Supply Unit	60W adapter, 100-240V	External Power Adapter, 90W, 100-240V	
Power Consumption: Operating Mode, Typical	-	22.38 Tested with drives fully populated.	
Lüfter	-	-	
Kensington Security Slot	Yes	-	

	TS-364	TBS-464
		
	TS-364-4G	TBS-464-8G
	Intel® Celeron® N5105/N5095/N5095A 4-core/4-thread processor, burst up to 2.9 GHz	Intel® Celeron® N5105 4-core/4-thread processor, burst up to 2.9GHz
	64-bit x86	64-bit x86
	Intel® UHD Graphics	Intel® UHD Graphics
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Yes	Yes
	4 GB SODIMM DDR4 (1 x 4 GB)	8 GB DDR4, not expandable
	16 GB (2 x 8 GB)	8 GB DDR4, not expandable
	2 x SO-DIMM DDR4 When installing two memory modules, please ensure that they are the same size and ideally use the same type of RAM for both memory slots.	-
	3 x 3.5-inch SATA 6Gb/s, 3Gb/s	-
	Yes	-
	2 x M.2 2280 PCIe Gen 3 x2 slots	4 x M.2 2280 NVMe Gen3 x2 slots The system is shipped without SSD. For the SSD compatibility list, please visit https://www.qnap.com/compatibility/
	Yes	Yes
	-	-
	1	2 (also support 10M)
	Optional via an adapter	-
	-	-
	-	-
	-	-
	-	-
	-	3
	1	2
	2 x Type-A	-
	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	2, HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz)
	Tower	Set-top design
	-	30 x 230 x 165
	-	0.8
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	65W adapter, 100 - 240V	External Power Adapter, 65W, 100-240V
	-	16.52 Tested with drives fully populated.
	1 x 92mm, 12VDC	1 x system Lüfter
	Yes	Yes

TS-251+



Model	TS-251+-2G	TS-251+-8G
CPU	Intel® Celeron® J1900 4-core/4-thread processor, burst up to 2.42 GHz	
CPU Architecture	64-bit x86	
Graphic Processors	Intel® HD Graphics	
Floating Point Unit	Yes	
Encryption Engine	-	
Hardware-beschleunigte Transkodierung	Yes	
System Memory	2 GB SO-DIMM DDR3L (1 x 2GB)	8 GB SO-DIMM DDR3L (2 x 4GB)
Maximum Memory	8 GB (2 x 4GB)	
Memory Slot	2 x SO-DIMM DDR3L When installing two memory modules, please ensure that they are the same size and ideally use the same type of RAM for both memory slots. For the information of RAM module installation and compatible NAS models, please refer to the [QNAP RAM Module Installation Guide] (https://www.qnap.com/go/support/con_show.php?cid=9).	
Drive Bay	2 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit (https://www.qnap.com/compatibility/)	
Hot-swappable	Yes	
M.2 Slot	-	
SSD-Cache-Beschleunigung Unterstützung	Yes	
Gigabit Ethernet Port (RJ45)	2	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	
10 Gigabit Ethernet Port	-	
25 Gigabit Ethernet Port	-	
Thunderbolt Port	-	
PCIe Slot	-	
USB 2.0 port	2	
USB 3.2 Gen 1 port	2	
USB 3.2 Gen 2 (10Gbps) Port	-	
HDMI Output	1, (up to 1080p)	
Form Factor	Tower	
Abmessungen (HxBxT)	168.5 x 102 x 225	
Gewicht (Netto)	1.28	
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	
Power Supply Unit	60W/65W adapter, 100-240V	
Power Consumption: Operating Mode, Typical	18.09	
Lüfter	1 x 70mm, 12VDC	
Kensington Security Slot	Yes	



TS-451+







	TS-451+-2G	TS-451+-8G
	Intel® Celeron® J1900 4-core/4-thread processor, burst up to 2.42 GHz	
	64-bit x86	
	Intel® HD Graphics	
	Yes	
	-	
	Yes , up to 1080P	
	2 GB SO-DIMM DDR3L (1 x 2 GB)	8 GB SO-DIMM DDR3L (2 x 4 GB)
	8 GB (2 x 4GB)	
	2 x SO-DIMM DDR3L For dual-DIMM configurations, you must use a pair of identical DDR3L modules.	
	4 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	
	Yes	
	-	
	Yes	
	2	
	-	
	-	
	-	
	-	
	-	
	2	
	2	
	-	
	1, (up to 1080p)	
	Tower	
	177 x 180 x 235	
	3	
	0 - 40 °C (32°F - 104°F)	
	90W adapter, 100-240V	
	33.88	
	1 x 120mm, 12VDC	
	Yes	



Die nächste Generation intelligente IP-Überwachung und Fernsicherung Lösung







	QSW-M2116P-2T2S	QGD-1602P
		
Model	QSW-M2116P-2T2S	QGD-1602P-C3558-8G
Management Type	Web Managed	Web Managed
PCIe Slot	-	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)
USB 3.2 Gen 1 port	-	2
USB 2.0 port	-	-
Management Port	-	2 x 5GbE ; 2 x 1GbE
USB 3.2 Gen 2 (10Gbps) Port	-	Optional via PCIe adapter
HDMI Output	-	-
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption	350W	280W
Input Power Type	AC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	32K	32K
Total Non-Blocking Throughput	80Gbps	48Gbps
Switching Capacity	160Gbps	96Gbps
Management Interface	Web	Web
Console	RJ45	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	-
Lüfter	PWM double ball bearing Lüfter x 2	System: 3 x 4 cm (12V DC)
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3an 10G BASE-T IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.3af/at/bt Power-over-Ethernet (PoE)	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR 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
Number of Ports	20	18
10GbE SFP+	2	"2 10G/1G"
10GbE BASE-T (RJ45)	2	-
2.5GbE (RJ45)	16	8
1GbE (RJ45)	-	8
1GbE SFP/RJ45 Combo Ports	-	-
Total PoE Ports	18	16
PoE PSE (802.3af, 15.4W)	Port 1-16	Ports 1-16
PoE+ PSE (802.3at, 30W)	Port 1-16	Ports 1-16
PoE++ PSE (802.3bt, 60W)	-	-
PoE++ PSE (802.3bt, 90W)	Port 19-20	Ports 1-4
PoE Power Output	Port 1-16 (30W), Port 19-20 (90W)	Ports 1-4 (90W), Ports 5-16 (30W)
Total PoE Power Budget	280W	200W
Form Factor	Rackmount	Rackmount
Abmessungen (HxBxT)	43.5 x 285 x 234.8	44.2 x 435.2 x 327.7
Gewicht (Netto)	2.08	4.37



	QGD-1602P	QGD-1600P
		
	QGD-1602P-C3758-16G	QGD-1600P-4G
	Web Managed	Web Managed
	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)
	2	1
	-	2
	2 x 5GbE ; 2 x 1GbE	1 x 1GbE
	Optional via PCIe adapter	Optional via PCIe adapter
	-	1
	Internal Power Supply Unit	Internal Power Supply Unit
	500W	418W
	AC	AC
	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
	32K	8K
	48Gbps	16Gbps
	96Gbps	32Gbps
	Web	Web
	-	-
	-	Yes
	System: 3 x 4 cm (12V DC)	System: 2 x 4 cm (12V DC)
	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR 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	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
	18	16
	"2 10G/1G"	-
	-	-
	8	-
	8	14
	-	2
	16	16
	Ports 1-16	Ports 1-16
	Ports 1-16	Ports 1-16
	-	Ports 1-4
	Ports 1-4	-
	Ports 1-4 (90W), Ports 5-16 (30W)	Ports 1-4 (60W), Ports 5-16 (30W)
	370W	360W
	Rackmount	Rackmount
	44.2 x 435.2 x 327.7	47.2 x 436.2 x 326.2
	4.37	4.41

	QSW-M2116P-2T2S	QGD-1602P
		
Model	QSW-M2116P-2T2S	QGD-1602P-C3558-8G
Management Type	Web Managed	Web Managed
PCIe Slot	-	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)
USB 3.2 Gen 1 port	-	2
USB 2.0 port	-	-
Management Port	-	2 x 5GbE ; 2 x 1GbE
USB 3.2 Gen 2 (10Gbps) Port	-	Optional via PCIe adapter
HDMI Output	-	-
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption	350W	280W
Input Power Type	AC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	32K	32K
Total Non-Blocking Throughput	80Gbps	48Gbps
Switching Capacity	160Gbps	96Gbps
Management Interface	Web	Web
Console	RJ45	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	-
Lüfter	PWM double ball bearing Lüfter x 2	System: 3 x 4 cm (12V DC)
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3an 10G BASE-T IEEE 802.3ae 10G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.3az Energy Efficient Ethernet IEEE 802.3af/at/bt Power-over-Ethernet (PoE)	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR 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
Number of Ports	20	18
10GbE SFP+	2	2 10G/1G
10GbE BASE-T (RJ45)	2	-
2.5GbE (RJ45)	16	8
1GbE (RJ45)	-	8
1GbE SFP/RJ45 Combo Ports	-	-
Total PoE Ports	18	16
PoE PSE (802.3af, 15.4W)	Port 1-16	Ports 1-16
PoE+ PSE (802.3at, 30W)	Port 1-16	Ports 1-16
PoE++ PSE (802.3bt, 60W)	-	-
PoE++ PSE (802.3bt, 90W)	Port 19-20	Ports 1-4
PoE Power Output	Port 1-16 (30W), Port 19-20 (90W)	Ports 1-4 (90W), Ports 5-16 (30W)
Total PoE Power Budget	280W	200W
Form Factor	Rackmount	Rackmount
Abmessungen (HxBxT)	43.5 x 285 x 234.8	44.2 x 435.2 x 327.7
Gewicht (Netto)	2.08	4.37

	QGD-1602P	QGD-1600P
		
	QGD-1602P-C3758-16G	QGD-1600P-4G
	Web Managed	Web Managed
	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)
	2	1
	-	2
	2 x 5GbE ; 2 x 1GbE	1 x 1GbE
	Optional via PCIe adapter	Optional via PCIe adapter
	-	1
	Internal Power Supply Unit	Internal Power Supply Unit
	500W	418W
	AC	AC
	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
	32K	8K
	48Gbps	16Gbps
	96Gbps	32Gbps
	Web	Web
	-	-
	-	Yes
	System: 3 x 4 cm (12V DC)	System: 2 x 4 cm (12V DC)
	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR 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	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
	18	16
	2 10G/1G	-
	-	-
	8	-
	8	14
	-	2
	16	16
	Ports 1-16	Ports 1-16
	Ports 1-16	Ports 1-16
	-	Ports 1-4
	Ports 1-4	-
	Ports 1-4 (90W), Ports 5-16 (30W)	Ports 1-4 (60W), Ports 5-16 (30W)
	370W	360W
	Rackmount	Rackmount
	44.2 x 435.2 x 327.7	47.2 x 436.2 x 326.2
	4.37	4.41

	QGD-1600P	QGD-3014-16PT
		
Model	QGD-1600P-8G	QGD-3014-16PT-8G
Management Type	Web Managed	Web Managed
PCIe Slot	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)	-
USB 3.2 Gen 1 port	1	3
USB 2.0 port	2	-
Management Port	1 x 1GbE	2 x 2.5GbE
USB 3.2 Gen 2 (10Gbps) Port	Optional via PCIe adapter	-
HDMI Output	1	2
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption	418W	250W
Input Power Type	AC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	8K	8K
Total Non-Blocking Throughput	16Gbps	16Gbps
Switching Capacity	32Gbps	32Gbps
Management Interface	Web	Web
Console	-	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes
Lüfter	System: 2 x 4 cm (12V DC)	System: 12 x 12 cm (12V DC)
Supported Standards	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	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 Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization IEEE 802.3az Energy Efficient Ethernet IEEE 802.3af/at Power-over-Ethernet (PoE)
Number of Ports	16	16
10GbE SFP+	-	-
10GbE BASE-T (RJ45)	-	-
2.5GbE (RJ45)	-	-
1GbE (RJ45)	14	14
1GbE SFP/RJ45 Combo Ports	2	2
Total PoE Ports	16	16
PoE PSE (802.3af, 15.4W)	Ports 1-16	Ports 1-16
PoE+ PSE (802.3at, 30W)	Ports 1-16	Ports 1-16
PoE++ PSE (802.3bt, 60W)	Ports 1-4	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	Ports 1-4 (60W), Ports 5-16 (30W)	Ports 1-16 (Max 30W)
Total PoE Power Budget	360W	140W
Form Factor	Rackmount	Desktop
Abmessungen (HxBxT)	47.2 x 436.2 x 326.2	130 x 295 x 224.8
Gewicht (Netto)	4.41	4.08

	QVP-21A	QVP-21A
		
Model	QVP-21A	QVP-21A-04CH
OS	QVR Pro OS (QVP)	QVR Pro OS (QVP)
CPU	Intel® J1900 quad-core 2.0 GHz processor (burst up to 2.42 GHz)	Intel® J1900 quad-core 2.0 GHz processor (burst up to 2.42 GHz)
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® HD Graphics	Intel® HD Graphics
Hardware-beschleunigte Transkodierung	-	-
System Memory	8 GB SO-DIMM DDR3L (2 x 4 GB)	8 GB SO-DIMM DDR3L (2 x 4 GB)
Maximum Memory	8 GB (2 x 4GB)	8 GB (2 x 4GB)
Memory Slot	2 x SO-DIMM DDR3L	2 x SO-DIMM DDR3L
Drive Bay	2 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	2 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	Yes	Yes
M.2 SSD Slot	-	-
Max Live Cameras (Local Display)	12ch @ All 720p,H.264, 30FPS 6ch @ All 1080p,H.264, 30FPS	12ch @ All 720p,H.264, 30FPS 6ch @ All 1080p,H.264, 30FPS
Max Playback Cameras (Local Display)	12	12
Max Concurrent Connection (Client)	8 (4 live cameras / per remote client) *The number of client concurrent connection varies by live cameras	8 (4 live cameras / per remote client) *The number of client concurrent connection varies by live cameras
Embedded Channel	8	4
Max Channel	16 H264 / 1920x1080 / 30FPS	16 H264 / 1920x1080 / 30FPS
Max Throughput	180 Mbps	180 Mbps
Gigabit Ethernet Port (RJ45)	2	2
PCIe Slot	-	-
USB 3.2 Gen 1 port	3	3
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	1, HDMI 1.4b (up to 3840 x 2160 @ 30Hz)	1, HDMI 1.4b (up to 3840 x 2160 @ 30Hz)
Form Factor	Tower	Tower
Abmessungen (HxBxT)	150 x 102 x 216	150 x 102 x 216
Gewicht (Netto)	1.47	1.47
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	90W adapter, 100-240V	90W adapter, 100-240V
Power Consumption: Operating Mode, Typical	16.34	16.34
Power Off (Wake-On-LAN/ WOL)	0.74	0.74
Lüfter	1 x 70mm, 12VDC	1 x 70mm, 12VDC
Tray Locker	Yes	Yes

	QVP-41A	QVP-63A
		
Model	QVP-41A	QVP-63A
OS	QVR Pro OS (QVP)	QVR Pro OS (QVP)
CPU	Intel® Pentium G5400T 2-core 3.1 GHz Processor	Intel® Core™ i3-8100T 4-core 3.1 GHz Processor
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics 610	Intel® UHD Graphics 630
Hardware-beschleunigte Transkodierung	-	-
System Memory	8 GB SODIMM DDR4 (2 x 4 GB)	16 GB SODIMM DDR4 (2 x 8 GB)
Maximum Memory	32 GB (2 x 16 GB)	32 GB (2 x 16 GB)
Memory Slot	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	6 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	Yes	Yes
M.2 SSD Slot	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
Max Live Cameras (Local Display)	24ch @ All 720p,H.264, 30FPS 12ch @ All 1080p,H.264, 30FPS	32ch @ All 720p,H.264, 30FPS 16ch @ All 1080p,H.264, 30FPS
Max Playback Cameras (Local Display)	12	12
Max Concurrent Connection (Client)	8 (4 live cameras / per remote client) *The number of client concurrent connection varies by live cameras	16 (4 live cameras / per remote client) *The number of client concurrent connection varies by live cameras
Embedded Channel	8	8
Max Channel	24 H264 / 1920x1080 / 30FPS	36 H264 / 1920x1080 / 30FPS
Max Throughput	264 Mbps	396 Mbps
Gigabit Ethernet Port (RJ45)	2	2
PCIe Slot	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)
USB 3.2 Gen 1 port	1	1
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-C USB 3.2 Gen2 5V/3A 10Gbps 2 x Type-A USB 3.2 Gen2 5V/1A 10Gbps	2 x Type-C USB 3.2 Gen2 5V/3A 10Gbps 2 x Type-A USB 3.2 Gen2 5V/1A 10Gbps
HDMI Output	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	Tower	Tower
Abmessungen (HxBxT)	188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6
Gewicht (Netto)	5.4	6.553
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	250W, 100-240V
Power Consumption: Operating Mode, Typical	37.32 With WD10EFRX drives fully populated	45.6 With WD10EFRX drives fully populated
Power Off (Wake-On-LAN/ WOL)	-	-
Lüfter	System Lüfter: 1 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter	System Lüfter: 2 x 92mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
Tray Locker	Yes	Yes

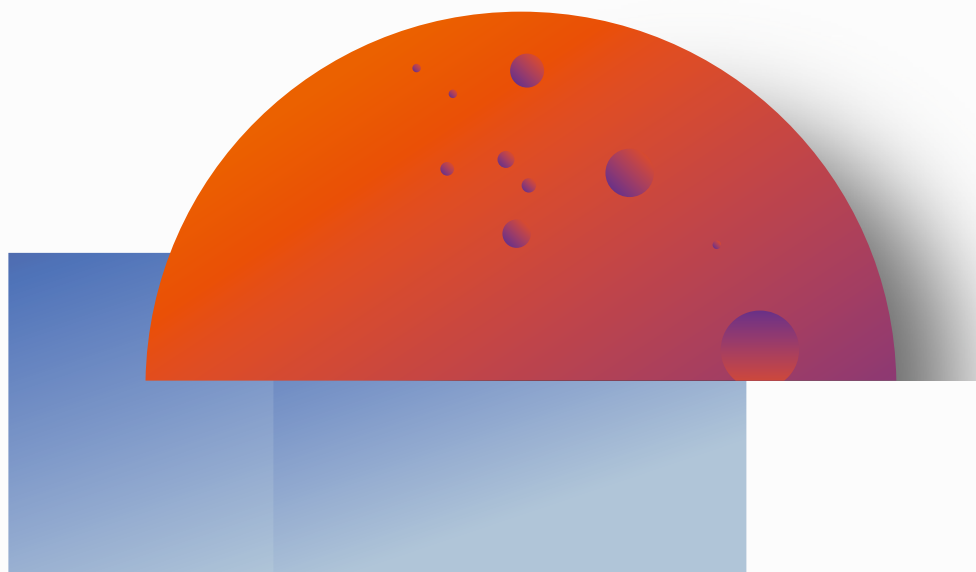
QVP-85A






	QVP-85A
	QVR Pro OS (QVP)
	Intel® Core™ i5-8400T 6-core 1.7 GHz Processor, Max turbo to 3.3 GHz
	64-bit x86
	Intel® UHD Graphics 630
	Yes
	16 GB SODIMM DDR4 (2 x 8 GB)
	32 GB (2 x 16 GB)
	2 x SO-DIMM DDR4
	8 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
	Yes
	2 x M.2 2280 PCIe Gen3 x2 slots
	32ch @ All 720p,H.264, 30FPS 16ch @ All 1080p,H.264, 30FPS
	12
	16 (4 live cameras / per remote client) *The number of client concurrent connection varies by live cameras
	8
	48 H264 / 1920x1080 / 30FPS
	528 Mbps
	2
	2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)
	1
	2 x Type-C USB 3.2 Gen2 5V/3A 10Gbps 2 x Type-A USB 3.2 Gen2 5V/1A 10Gbps
	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
	Tower
	188.2 x 329.3 x 279.6
	7.06
	0 - 40 °C (32°F - 104°F)
	250W, 100-240V
	65.03 With WD10EFRX drives fully populated
	-
	System Lüfter: 2 x 120mm, 12VDC CPU Lüfter: 2 x 60mm blower Lüfter
	Yes

QuWAN SD-WAN

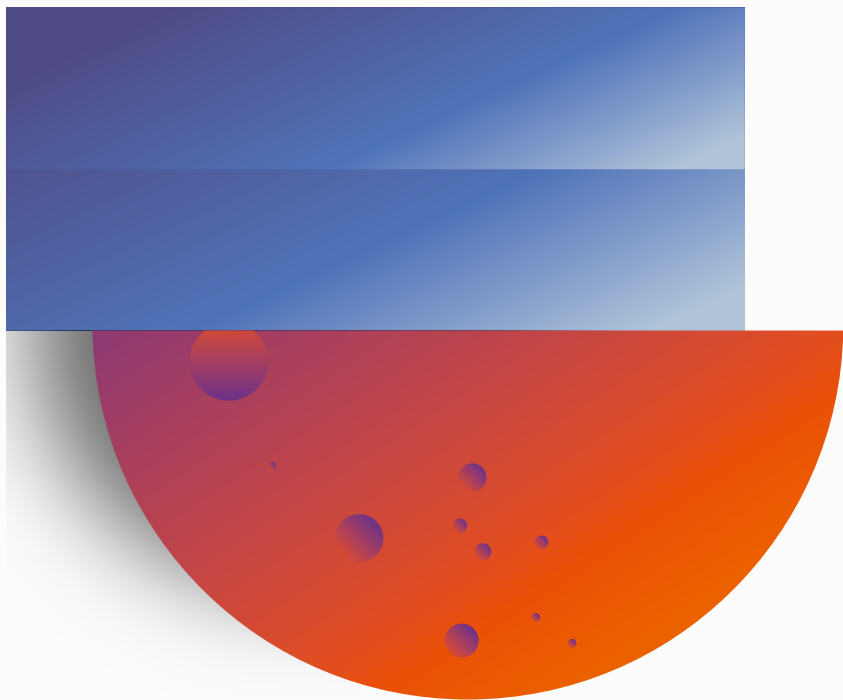
Lösung für eine
widerstandsfähige IT
Infrastruktur





	QHora-301W	QMiroPlus-201W
		
Model	QHora-301W	QMiroPlus-201W
Number of Ethernet Ports	6	5
10GbE BASE-T (RJ45)	2 x 10GBASE-T (10G/5G/2.5G/1G/100M)	-
2.5GbE Host Port(RJ45)	-	1
1GbE (RJ45)	4	4
CPU	Qualcomm IPQ8072A Hawkeye 2 Quad-core 2.2 GHz 64-bit CPU	Router: Qualcomm IPQ4019, Quad 4cores ARM Cortex A7@716.8MHz NAS: Intel Gemini Lake J4125 4cores @2.0Ghz
Memory	1GB	Router: 512MB DDR3 NAS: 4GB DDR4
Flash	4GB eMMC	Router: 4MB SPI NOR Flash+4GB eMMC NAS:4GB eMMC
Wireless Antenna	8 Internal Antennas	4 Internal Antennas
Wireless Antenna Type	8 Internal 5dBi Antennas	2 Internal dual band(2.4G/5G) antennas 2 Internal single band(5G) antennas
Antenna Gain 2.4 GHz	4.5dBi	2.5dBi, 2.6dBi
Antenna Gain 5 GHz	5.2dBi	4.6dBi, 4.4dBi
Wi-Fi 6 (802.11ax)	Yes	-
Wi-Fi 5 (802.11ac)	Yes	Yes
USB 3.2 Gen 1 port	2	2
Bluetooth	-	Version 5
Bluetooth Antenna Gain	-	3.42dBi
Button	Power, WPS, Reset	Power(for NAS), Reset, WPS
Power	12V DC	12V DC
Power consumption	24W	60W
Wireless Standard	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac
Wireless Speed Rating	AX3600	AC2200
Wireless Speed 2.4 GHz	2.4G (1182Mbps): 4x4 (40MHz)	2.4G (400Mbps): 2x2 Dual Band(20/40MHz)
Wireless Speed 5 GHz	5G (2475Mbps): 4x4 (80MHz), 2x2 (160MHz)	5G (867+867Mbps): 2x2 Dual Band(20/40/80MHz), 2x2 Single Band (20/40/80MHz)
Frequency Band 2.4 GHz	Yes , dual band	Yes
Frequency Band 5 GHZ	Yes , dual band	Yes
Wireless Bandwidth	20/40/80/160 MHz	20/40/80MHz
Transmit Output Power	Depends on country code	Depends on country code
Dimensions	250 × 180 × 48	183.5 x 105 x 143.5
Weight	1.9	1.44
Betriebstemperatur	0°C ~ +40°C	0°C ~ +40°C
Operating Humidity	5% to 95% non-condensing	5% to 95% non-condensing
Certifications	JATE / CE / FCC / BSMI / NCC / IC / SRRC / CCC / VCCI / RCM	JATE / CE / FCC / BSMI / NCC / IC / SRRC / CCC / VCCI / RCM / OFCA
Wi-Fi Mesh	-	Yes (with Tri-Band)
QNAP SD-WAN solution, QuWAN	Yes	Yes
Drive Bay	-	2 x 2.5-inch SATA 3Gb/s(Compatible with 6Gb/s SSD/HDD)

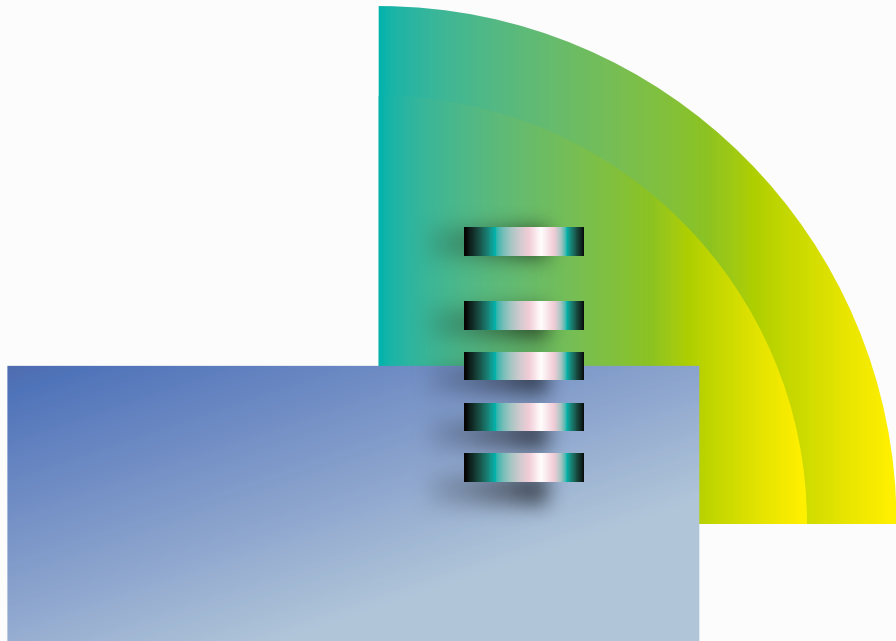
	QMiro-201W
	
	QMiro-201W
	2
	-
	-
	2
	Qualcomm IPQ4019, Quad 4core ARM Cortex A7@716.8MHz
	512MB DDR3
	4MB SPI NOR Flash 4GB eMMC
	4 Internal Antennas
	2 Internal dual band(2.4G/5G) antennas 2 Internal single band(5G) antennas
	4.6dBi, 2.7dBi
	4.9dBi, 6.0dBi
	-
	Yes
	1
	Version 5
	2.3dBi
	Reset, WPS
	12V DC
	24W
	802.11a/b/g/n/ac
	AC2200
	2.4G (400Mbps): 2x2 Dual Band(20/40MHz)
	5G (867+867Mbps): 2x2 Dual Band(20/40/80MHz), 2x2 Single Band(20/40/80MHz)
	Yes
	Yes
	20/40/80MHz
	Depends on country code
	68 x 100 x 175.5
	0.44
	0°C ~ +40°C
	5% to 95% non-condensing
	JATE / CE / FCC / BSMI / NCC / IC / SRRC / VCCI / RCM / OFCA
	Yes (with Tri-Band)
	Yes
	-

Genießen Sie eine hohe
Abdeckung
Mesh Wi-Fi Erfahrung



	QMiroPlus-201W	QMiro-201W
		
Model	QMiroPlus-201W	QMiro-201W
Number of Ethernet Ports	5	2
10GbE BASE-T (RJ45)	-	-
2.5GbE Host Port(RJ45)	1	-
1GbE (RJ45)	4	2
CPU	Router: Qualcomm IPQ4019, Quad 4cores ARM Cortex A7@716.8MHz NAS: Intel Gemini Lake J4125 4cores @2.0Ghz	Qualcomm IPQ4019, Quad 4core ARM Cortex A7@716.8MHz
Memory	"Router: 512MB DDR3 NAS: 4GB DDR4"	512MB DDR3
Flash	Router: 4MB SPI NOR Flash+4GB eMMC NAS:4GB eMMC	4MB SPI NOR Flash 4GB eMMC
Wireless Antenna	4 Internal Antennas	4 Internal Antennas
Wireless Antenna Type	2 Internal dual band(2.4G/5G) antennas 2 Internal single band(5G) antennas	2 Internal dual band(2.4G/5G) antennas 2 Internal single band(5G) antennas
Antenna Gain 2.4 GHz	2.5dBi, 2.6dBi	4.6dBi, 2.7dBi
Antenna Gain 5 GHz	4.6dBi, 4.4dBi	4.9dBi, 6.0dBi
Wi-Fi 6 (802.11ax)	-	-
Wi-Fi 5 (802.11ac)	Yes	Yes
USB 3.2 Gen 1 port	2	1
Bluetooth	Version 5	Version 5
Bluetooth Antenna Gain	3.42dBi	2.3dBi
Button	Power(for NAS), Reset, WPS	Reset, WPS
Power	12V DC	12V DC
Power consumption	60W	24W
Wireless Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Wireless Speed Rating	AC2200	AC2200
Wireless Speed 2.4 GHz	2.4G (400Mbps): 2x2 Dual Band(20/40MHz)	2.4G (400Mbps): 2x2 Dual Band(20/40MHz)
Wireless Speed 5 GHz	5G (867+867Mbps): 2x2 Dual Band(20/40/80MHz), 2x2 Single Band(20/40/80MHz)	5G (867+867Mbps): 2x2 Dual Band(20/40/80MHz), 2x2 Single Band(20/40/80MHz)
Frequency Band 2.4 GHz	Yes	Yes
Frequency Band 5 GHz	Yes	Yes
Wireless Bandwidth	20/40/80MHz	20/40/80MHz
Transmit Output Power	Depends on country code	Depends on country code
Dimensions	183.5 x 105 x 143.5	68 x 100 x 175.5
Weight	1.44	0.44
Betriebstemperatur	0°C ~ +40°C	0°C ~ +40°C
Operating Humidity	5% to 95% non-condensing	5% to 95% non-condensing
Certifications	JATE / CE / FCC / BSMI / NCC / IC / SRRC / CCC / VCCI / RCM / OFCA	JATE / CE / FCC / BSMI / NCC / IC / SRRC / VCCI / RCM / OFCA
Wi-Fi Mesh	Yes (with Tri-Band)	Yes (with Tri-Band)
QNAP SD-WAN solution, QuWAN	Yes	Yes
Drive Bay	2 x 2.5-inch SATA 3Gb/s(Compatible with 6Gb/s SSD/HDD)	-

Flexibel und wirtschaftlich Speichererweiterung




	TL-D800C	TL-R1200C-RP
		
Model	TL-D800C	TL-R1200C-RP
CPU	-	-
Drive Bay	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	-	-
Gigabit Ethernet Port (RJ45)	-	-
Audio Alert On/Off Switch	Yes	Yes
Form Factor	Tower	2U Rackmount
Host Interface	1 x USB 3.2 Gen 2 Type-C	1 x USB 3.2 Gen 2 Type-C
Abmessungen (HxBxT)	188.2, 329.3, 281.4	88.6, 482, 562.5
Gewicht (Netto)	6.18	11.03
Max. number of HDDs/SSDs supported	8	12
Hard Drive Type	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W PSU, 100 - 240V	250W(x2) PSU, 100 - 240V
Power Consumption: Operating Mode, Typical	48.4 Tested with drives fully populated.	82.26 Tested with drives fully populated.
Lüfter Mode Switch	Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)
Lüfter	2 x 120mm, 12VDC	2 x 70mm, 12VDC
Kensington Security Slot	Yes	-
Management	-	-


	TL-D400S	TL-D800S
		
	TL-D400S	TL-D800S
	-	-
	4 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
	-	-
	-	-
	Yes	Yes
	Tower	Tower
	1 x SFF-8088	2 x SFF-8088
	168.5, 160.2, 219	188.2, 329.3, 279.6
	3.66	6.17
	4	8
	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	65W adapter, 100 - 240V	250W PSU, 100 - 240V
	22.985 Tested fully polulated with Seagate ST6000NM0024 hard drives.	51.606 Tested fully polulated with Seagate ST6000NM0024 hard drives.
	Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)
	1 x 120mm, 12VDC	2 x 120mm, 12VDC
	Yes	Yes
	-	-

	TL-D1600S	TL-R400S
		
Model	TL-D1600S	TL-R400S
CPU	-	-
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	-	-
Gigabit Ethernet Port (RJ45)	-	-
Audio Alert On/Off Switch	Yes	Yes
Form Factor	Tower	1U Rackmount
Host Interface	4 x SFF-8088	1 x SFF-8088
Abmessungen (HxBxT)	303.84, 369.89, 319.8	43.9, 438.9, 291.1
Gewicht (Netto)	11.59	3.98
Max. number of HDDs/SSDs supported	16	4
Hard Drive Type	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives (for 3.5-inch tray slots only) 2.5-inch SATA solid state drives	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W PSU, 100 - 240V	100W PSU, 100 - 240V
Power Consumption: Operating Mode, Typical	93.66 Tested with drives fully populated.	25.07 Tested fully populated with Seagate ST6000NM0024 hard drives.
Lüfter Mode Switch	Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)
Lüfter	3 x 92mm, 12VDC	2 x 40mm, 12VDC
Kensington Security Slot	Yes	Yes
Management	-	-

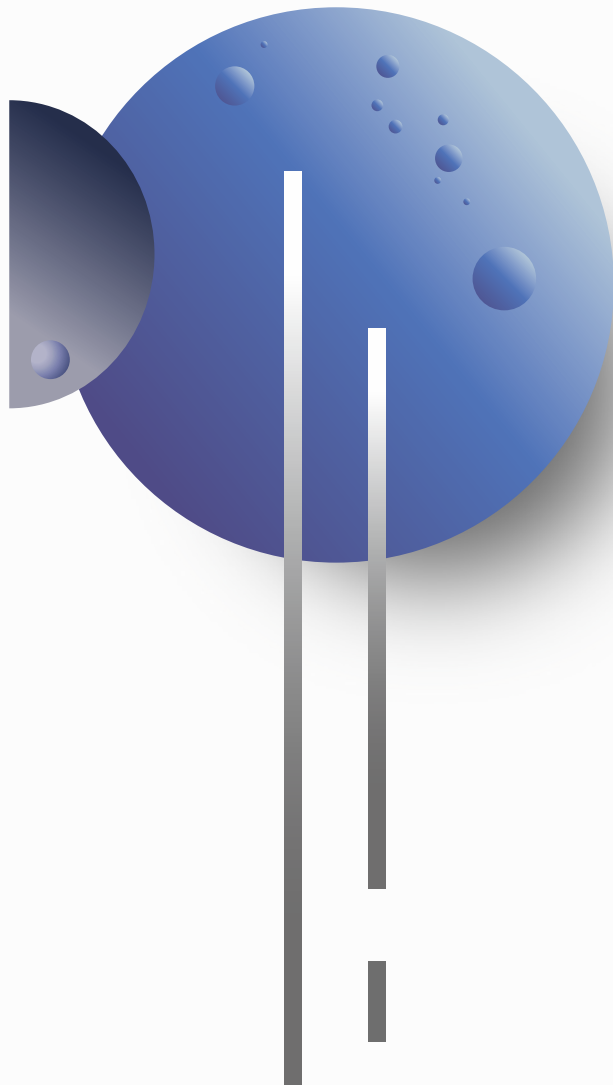
	TL-R1200S-RP	TL-R1220Sep-RP
		
	TL-R1200S-RP	TL-R1220Sep-RP
	-	-
	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
	-	Yes
	-	-
	Yes	-
	2U Rackmount	2U Rackmount
	3 x SFF-8088	4 x 12Gb/s SAS 3.0 wide ports (4-wide port) Mini-SAS HD (SFF-8644)
	88.6, 482, 562.5	88.65, 482.2, 423.8
	9.49	9.19
	12	12
	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives	3.5" or 2.5" SAS 12Gb/s, SAS/SATA 6Gb/s and 3Gb/s drives
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W(x2) PSU, 100 - 240V	300W (x2), 100 - 240V
	73.7 Tested fully populated with Seagate ST6000NM0024 hard drives.	163.38 Tested with drives fully populated.
	Yes (Auto, high, medium, low)	-
	2 x 70mm, 12VDC	2 x 80mm, 12VDC
	Yes	-
	-	Managed via QNAP QTS / QuTS hero OS 1. Supports disk S.M.A.R.T. information 2. RAID expansion enclosure identifier 3. Locate RAID expansion enclosures 4. Locate hard disks on RAID expansion enclosure 5. Smart Lüfter control by detecting system and hard drive temperature 6. In-band SAS firmware update

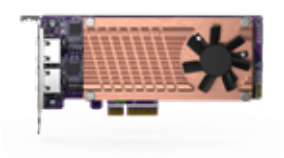
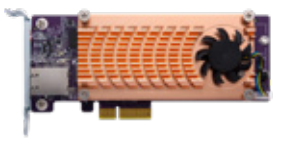
	TL-R1620Sep-RP	TL-R1620Sdc
		
Model	TL-R1620Sep-RP	TL-R1620Sdc
CPU	-	-
Drive Bay	16 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	16 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	1 For console access and CLI.
USB 3.2 Gen 2 (10Gbps) Port	-	-
Audio Alert On/Off Switch	-	-
Form Factor	3U Rackmount	3U Rackmount
Host Interface	4 x 12Gb/s SAS 3.0 wide ports (4-wide port) Mini-SAS HD (SFF-8644)	3 x 12Gb/s SAS 3.0 wide ports (4-wide port) Mini-SAS HD (SFF-8644) for each controller
Abmessungen (HxBxT)	131.3, 482.2, 425.3	131.3, 482.2, 425.3
Gewicht (Netto)	11.48	12.26
Max. number of HDDs/SSDs supported	16	16
Hard Drive Type	3.5" or 2.5" SAS 12Gb/s, SAS/SATA 6Gb/s and 3Gb/s drives	3.5" or 2.5" SAS 12Gb/s 6Gb/s drives
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	550W(x2), 100-240V	550W(x2), 100-240V
Power Consumption: Operating Mode, Typical	207.13 Tested with drives fully populated.	212.24 Tested with drives fully populated.
Lüfter Mode Switch	-	-
Lüfter	3 x 80mm, 12VDC	3 x 80mm, 12VDC
Kensington Security Slot	-	-
Management	Managed via QNAP QTS / QuTS hero OS 1. Supports disk S.M.A.R.T. information 2. RAID expansion enclosure identifier 3. Locate RAID expansion enclosures 4. Locate hard disks on RAID expansion enclosure 5. Smart Lüfter control by detecting system and hard drive temperature 6. In-band SAS firmware update	Managed via NAS QES OS and JBOD Manager for Windows

	TL-R2420Sdc	TR-002
		
	TL-R2420Sdc	TR-002
	-	Micro processor with hardware RAID
	24 x 2.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	2 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
	Yes	Yes
	1 For console access and CLI.	-
	-	-
	-	-
	2U Rackmount	Tower
	6 x 12Gb/s SAS 3.0 wide ports (4-wide port) Mini-SAS HD (SFF-8644) for each controller	1 x Type-C USB 3.2 Gen 2 10Gbps
	88.3, 446.2, 504.05	168.5, 102, 219
	-	1.37
	24	2
	2.5" SAS12Gb/s 6Gb/s drives	2 x 2.5-inch or 3.5-inch SATA 6Gb/s
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	550W(x2), 100-240V	External Power Adapter, 36W, 100-240V
	-	10.15 Tested with drives fully populated.
	-	-
	3 x 60mm, 12VDC per controller	1 x 70mm, 12VDC
	-	Yes
	Managed via NAS QES OS and JBOD Manager for Windows	-

	TR-004	TR-004U
		
Model	TR-004	TR-004U
CPU	Micro processor with hardware RAID	Micro processor with hardware RAID
Drive Bay	4 x 3.5-inch SATA 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	4 x 3.5-inch SATA 3Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]
Hot-swappable	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
USB 3.2 Gen 1 port	1 x Type-C USB 3.0 (USB 3.2 Gen 1)	1 x Type-C USB 3.0 (USB 3.2 Gen 1)
USB 3.2 Gen 2 (10Gbps) Port	-	-
Audio Alert On/Off Switch	-	-
Form Factor	Tower	1U Rackmount
Host Interface	-	-
Abmessungen (HxBxT)	168.5 x 160.2 x 219	44 x 439 x 291
Gewicht (Netto)	1.85	4.03
Max. number of HDDs/SSDs supported	4	4
Hard Drive Type	4 x 2.5-inch or 3.5-inch SATA 3Gb/s	4 x 2.5-inch or 3.5-inch SATA 3Gb/s
Betriebstemperatur	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	External Power Adapter, 65W, 100-240V	Open-frame 100W, Input: 100V-240V ~ / 3.5A, 50Hz-60Hz
Power Consumption: Operating Mode, Typical	18.21 Tested with drives fully populated.	18.9 Tested with drives fully populated.
Lüfter Mode Switch	-	-
Lüfter	1 x 120mm, 12VDC	2 x 40mm, 12VDC
Kensington Security Slot	Yes	Yes
Management	-	-

Versatile feature-rich
accessories to enhance
the performance
of your system


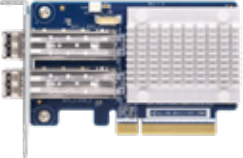


	QM2-2P2G2T	QM2-2P10G1TB
		
Model	QM2-2P2G2T	QM2-2P10G1TB
description	Dual M.2 2280 SATA SSD & dual-port 2.5GbE expansion card	Dual M.2 2280 PCIe NVMe SSD & single-port 10GbE expansion card

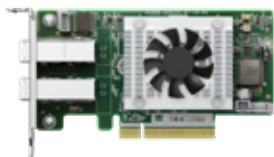
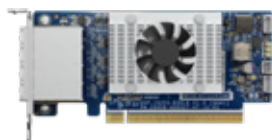
	QM2-2P410G1T	QM2-2P410G2T
		
Model	QM2-2P410G1T	QM2-2P410G2T
description	Dual M.2 2280 PCIe Gen4 NVMe SSD & single-port 10GbE expansion card	Dual M.2 2280 PCI Express 4.0 NVMe SSD & dual-port 10GbE expansion card


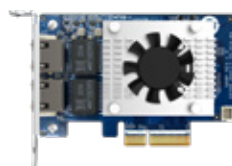
	QDA-SA3	QDA-A2AR
		
Model	QDA-SA3	QDA-A2AR
description	2.5-inch 6Gbps SAS to SATA drive adapter (Designed for dual-controller all-flash ES2486dc NAS)	Use two 2.5-inch SATA drives in a single 3.5-inch SATA drive bay with RAID support for PC and NAS

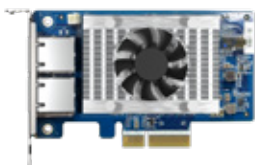

	QDA-U2MP	QXP-400eS-A1164
		
Model	QDA-U2MP	QXP-400eS-A1164
description	Use two M.2 PCIe NVMe SSD in a U.2 PCIe NVMe SSD drive bay for PC and NAS	Quad-port SATA expansion card (1 x SFF-8088)



	QXP-10G2U3A	QXP-16G2FC
		
Model	QXP-10G2U3A	QXP-16G2FC
description	USB 3.2 Gen 2 dual-port PCIe expansion card	Dual-port 16Gb Enhanced Gen 5 Fibre Channel expansion card with SFP+ transceivers



	QM2-4P-484	QM2-4P-484F
		
	QM2-4P-484	QM2-4P-484F
	Quad M.2 2280 PCIe Gen4 NVMe SSD expansion card; Low-profile	Quad M.2 2280 PCIe Gen4 NVMe SSD expansion card; Full-height
	QDA-SA	QDA-SA2
		
	QDA-SA	QDA-SA2
	6Gbps SAS to SATA drive adapter (Designed for Enterprise ZFS NAS)	6Gbps 2.5-inch SATA SSD to 3.5-inch SAS drive adapter for dual-controller servers
	QDA-A2MAR	QDA-UMP4
		
	QDA-A2MAR	QDA-UMP4
	Use two M.2 SATA SSDs in a single 2.5-inch SATA drive bay with RAID support for PC and NAS	Use an M.2 PCIe NVMe SSD in a U.2 PCIe NVMe SSD drive bay for PC and NAS
	QXP-800eS-A1164	QXP-1600eS
		
	QXP-800eS-A1164	QXP-1600eS
	8-port SATA expansion card (2 x SFF-8088)	16-port SATA expansion card (4 x SFF-8644)
	QXP-32G2FC	QXP-T32P
		
	QXP-32G2FC	QXP-T32P
	Dual-port 32Gb Gen 6 Fibre Channel expansion card with SFP+ transceivers	Dual-port Thunderbolt™ 3 Expansion Card

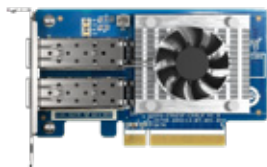
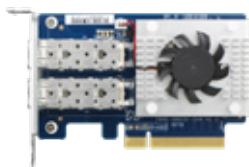
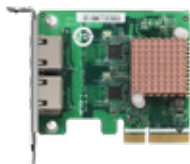
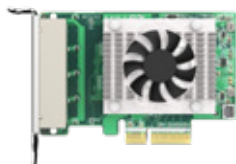



	QXP-820S-B3408	QXP-1620S-B3616W
		
Model	QXP-820S-B3408	QXP-1620S-B3616W
description	Dual-port External SAS 12Gb/s storage expansion card	Quad-port External SAS 12Gb/s storage expansion card

	QXG-10G1TB	QXG-10G2TB
		
Model	QXG-10G1TB	QXG-10G2TB
description	Single-port, 5-speed 10 GbE network expansion card	Dual-port, 5-speed 10 GbE network expansion card

	QXG-10G2T-X710	QXG-2G1T-I225
		
Model	QXG-10G2T-X710	QXG-2G1T-I225
description	Dual-port, 5-speed 10 GbE network expansion card	Single-port 2.5 GbE network expansion card

	QXG-5G1T-111C	QXG-5G2T-111C
		
Model	QXG-5G1T-111C	QXG-5G2T-111C
description	Single-port, 4-speed 5 GbE network expansion card	Dual-port, 4-speed 5 GbE network expansion card

	QNA-T310G1T	QNA-UC5G1T
		
Model	QNA-T310G1T	QNA-UC5G1T
description	Single-port Thunderbolt 3 to single-port 10GbE NBASE-T RJ-45	USB 3.2 Gen 1 to 5GbE Adapter

QXG-25G2SF-CX6		QXG-10G2SF-CX4	
			
	QXG-25G2SF-CX6		QXG-10G2SF-CX4
	Dual-port 25 GbE network expansion card		Dual-port 10 GbE network expansion card
QXG-2G2T-I225		QXG-2G4T-I225	
			
	QXG-2G2T-I225		QXG-2G4T-I225
	Dual-port 2.5 GbE network expansion card		Quad-port 2.5 GbE network expansion card
QXG-5G4T-111C		QNA-T310G1S	
			
	QXG-5G4T-111C		QNA-T310G1S
	Quad-port, 4-speed 5 GbE network expansion card		Single-port Thunderbolt 3 to single-port 10GbE SFP+
QXG-100G2SF-E810			
			
	QXG-100G2SF-E810		
	Dual-port 100 GbE network expansion card		

*All specifications are subject to change without notice



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