QNAP

Stay one step ahead

Product Selection Guide

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QES operation system

The QES operating system is based on the simple and efficient FreeBSD kernel and the ZFS file system that has been proven through years of experience to be most suitable for high-end enterprise applications.

Focus on data integrity

QES uses its end-to-end checksums to detect and correct silent data corruption caused by hardware defects, bugs in firmware or metadata errors. If an integrity violation is detected, QES automatically repairs the damage using data from the other mirror before the data is passed to applications.

Active-Active high availability with optimal storage efficiency

The QES-based ES NAS is powered by two processors and features dual active-active controller architecture, ensuring businesses with nearly zero downtime high availability as the standby controller can quickly take over if one controller breaks down.

Data deduplication and compression

QES supports block-based data deduplication to reclaim storage used by redundant/repeated data and in-line data compression to shrink file sizes. Both functions optimize storage utilization and provide cost savings for businesses when using SSDs.

Active-Active Dual-controller system

Both controllers of the ES NAS can carry traffic, along with Copy-To-Flash protection against power failure and the dual-path SAS interface design. Besides conserving computing resources, a high-speed, uninterrupted, and high-availability storage service is also provided through communication protocols such as SMB, NFS and iSCSI.

All flash storage. ultimate performance

QNAP's All-Flash Storage Solutions feature ZFS data reduction and SSD optimization technologies to maximize SSD performance and lifespan – perfect for keeping your business agile and efficient!

Flash-optimized storage

Write amplification is an undesirable effect of SSDs, bringing challenges to flash memory performance and endurance. QNAP's exclusive Write Coalescing algorithm is engineered for flash optimization by transforming all random writes to sequential writes along with reduced I/O. It not only effectively increases random write performance for all-flash environments but can also improve SSD lifespans.

Quality of service

Quality of Service helps optimize resource allocation based on I/O and bandwidth for LUNs/shared folders at different service levels. QoS prioritizes the performance of business-critical applications that run concurrently with non-critical applications as well as reducing "noisy neighbor" problems.

Inline data compression and compaction

Inline data compression shrinks file sizes to lower storage I/O workloads for improved performance. It also helps optimize storage utilization of SSD over-provisioning.

SSD TRIM

While almost all SSDs have shown consistent write performance degradation, TRIM helps overcome write performance drops. SSD TRIM allows the system to inform SSDs to delete unneeded data blocks. Deletion tasks are processed during system idle times, meaning it does not have to wait for when new data is written to the block.

High-performance ZFS-based OS with greater reliability

QNAP's "QuTS hero" operating system combines the app-based QTS with a 128-bit ZFS file system to provide flexible storage management, comprehensive data protection and optimized performance to meet the needs of business-critical applications.

Efficient data reduction technology

Inline data deduplication is block-based and runs before data is written to storage. This greatly optimizes storage usage while significantly decreasing storage capacity requirements. Coupled with inline compression and inline compaction technologies, ZFS significantly reduces the overall storage footprint - especially helpful for increasing SSD storage efficiency when highly-repetitive data or massive small files are generated.

Near-limitless, instant snapshots

ZFS supports up to 65,535 snapshots for iSCSI LUN and shared folders to accomplish well-rounded snapshot versioning. If 1 snapshot is created every hour, 24 snapshots per day, then up to 7 years of snapshots can be created without needing to delete any!

Up to petabyte capacity per shared folder

The 128-bit ZFS filesystem has huge capacity potential and supports native handling of standard RAID levels and additional ZFS RAID layouts (RAID Z). ZFS-based QNAP storage solutions provide up to 1 PB capacity for individual shared folders, enabling enterprises to tackle storage-demanding applications

QuTS hero

Real-time SnapSync

The advanced block-based real-time SnapSync ensures that the primary NAS and the secondary NAS always keep the same data, providing the strongest support for nonstop business operations and helping users remove the risk of data loss!

High-speed 25GbE networking

Enable lightning-fast throughput for bandwidth-demanding tasks such as virtualization, massive data transmission, and fast backup/restoration

25GbE-ready All-flash NAS

The TS-h3088XU-RP provides a built-in dual-port 25GbE SFP28 SmartNIC with the NVIDIA® Mellanox ConnectX-4 Lx SmartNIC controller that supports iSCSI Extensions for RDMA (iSER) to increase performance of data transfer between NAS and ESXi server and offload CPU workloads.

Affordable 25GbE managed switch

The QSW-M5216-1T is a 25GbE Layer 2 web managed switch that provides flexible network interfaces for high compatibility at an affordable price, enabling small businesses to quickly upgrade to an ultra-high-speed backbone network by integrating to existing network infrastructure.

10GbE connectivity: The future is now!

10GbE connectivity improves overall network performance and everyday tasks with ten times the bandwidth of 1GbE. By offering 10GbE-ready NAS, network adapters and switches, QNAP is a one-stop provider for everything you need to create your own 10GbE environment.

10GbE NAS solutions

QNAP provides a range of NAS with integrated hardware and software solutions that can make the most of the incredible bandwidth provided by 10GbE networks.

10GbE switches

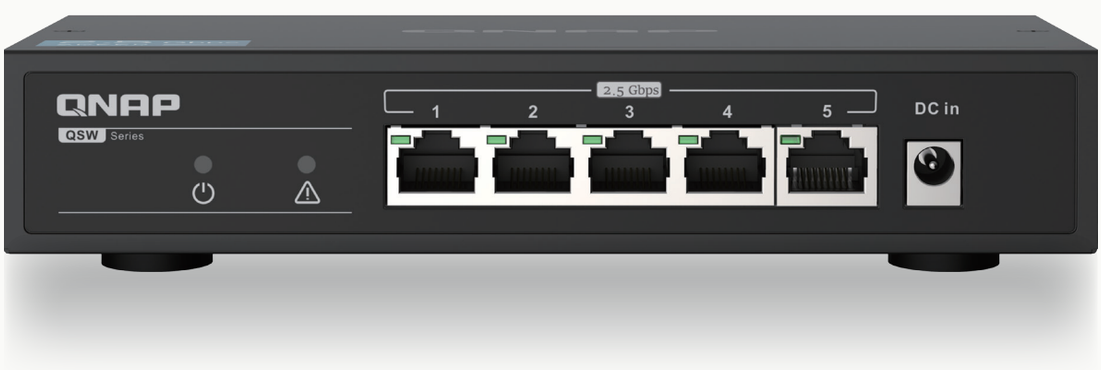
QNAP's QSW Series 10GbE switches supports 10GBASE-T and NBASE-T standards, allowing you to take advantage of higher network speeds with existing Cat 5e and 6a cables. Both SFP+ (fiber) and RJ45 (copper) ports are available for servicing a range of network needs.

10GbE network adapters

QNAP provides 10GbE PCIe expansion card and Thunderbolt to 10GbE adapters to empower devices with 10GbE connectivity. The QM2 Expansion Card not only includes 10GbE connectivity, but also provides the ability to add M.2 SSDs to your workstation or NAS.

2.5GbE is not just for offices, but also for homes

The lack of consumer-grade switches has made it hard for home and personal users to adopt 2.5GbE/5GbE networking. QNAP now offers cost-effective multi-port switches that support 10G/5G/2.5G/1G/100M Ethernet, helping you to transform your home network at a wallet-friendly price.



2.5GbE switches

QNAP offers a 10GbE switch series supporting five speeds (10G / 5G / 2.5G / 1G / 100M) and a 2.5GbE switch series. With 2.5GbE ports, the QNAP switch can instantly upgrade your network to take advantage of 2.5GbE-enabled devices and NAS.

Works with existing cables

No special cables or connectors are required to take advantage of 2.5GbE. Simply use your existing CAT5e cables as normal with your new 2.5GbE infrastructure.

2.5GbE Solution

2.5 times faster

2.5GbE is 2.5 times faster than standard Ethernet (1GbE), increasing network performance to boost productivity.

More affordable

If you can't budget a 10GbE upgrade at this time, the more affordable 2.5GbE provides a notable improvement in current Ethernet speeds.

Breakthrough performance and outstanding connectivity with Thunderbolt NAS

QNAP offers the very best in connectivity with Thunderbolt™ NAS. Thunderbolt™ NAS is far superior in providing both the best in speed and versatility that non-Thunderbolt NAS cannot offer, video production professionals using QNAP Thunderbolt™ NAS enjoy efficient workflows, unprecedented speed, and incredible versatility.

Ultra-high speed transfer

Edit right off your NAS with blazing fast Thunderbolt™ 3 connectivity. With potential speeds of up to 40Gbps, connect your compatible Macs and other Thunderbolt™ 3 devices directly to the NAS and work unaffected by other network traffic.

Facilitate 10GbE workflows with Thunderbolt-to-Ethernet

The innovative T2E Converter bridges Thunderbolt and Ethernet networks, allowing Thunderbolt-enabled computers to connect to these networks via their Thunderbolt connection to the QNAP Thunderbolt NAS. This saves a 10GbE port and eliminates the need for extra adapters or network cards.

Thunderbolt NAS Solution

High availability with USB Type-C

The usage of USB Type-C by Thunderbolt 3 provides a universal connection from QNAP NAS to Thunderbolt devices as well as countless USB Type-C devices through a single cable, allowing file sharing and centralized data storage without the hassle of stringing multiple cables.

Collaboration station for Mac and Windows

The increased bandwidth of Thunderbolt 3 enables smooth video editing and faster file sharing for photographers, video editors and graphic designers. Up to 2 Thunderbolt™ devices can be connected to the QNAP Thunderbolt NAS to process real-time photo and audio editing simultaneously without impacting system performance.

Easily build your personal cloud and access anywhere

In contrast to the limited storage space and potential security issues with public cloud services, the QNAP NAS is advantageous for establishing a secure and large-capacity personal cloud.

An easy-to-use, all-in-one backup solution

The QNAP NAS can do many things, but at its heart is a complete backup solution to protect your files and data. By regularly backing up your files and device content, you can make data loss a thing of the past.

Greater multimedia enjoyment

The QNAP NAS comes with a wide range of media applications, including Photo Station, Video Station and Music Station, allowing you to easily manage and view your media files.

Easy and secure remote connection with myQNAPcloud

myQNAPcloud allows you to remain connected to your QNAP NAS using a unique domain name. No complex routing or configuration is required, and myQNAPcloud strengthens SSL Certificate keys to 2048-bits to enable secure remote access, management, and sharing files and check your system status from anywhere.

A secure backup center with snapshot protection

Snapshots are essential for NAS data protection, and their block-level feature makes it a dependable data protection method in the face of growing ransomware threats.

Connect to a TV or monitor with HDMI

With HDMI output, the QNAP NAS allows you to directly enjoy multimedia content, use web browsers, manage your NAS, or watch recorded surveillance footage or live feeds on your NAS.

Next-generation intelligent IP surveillance and remote backup solution

With the subscription-based QVR Elite smart surveillance solution you only pay for the channel licenses you need, allowing you to affordably safeguard your property. You can arrange a dedicated, independent storage space for surveillance data on the QNAP NAS and enjoy simplified camera management, storage space allocation, camera live viewing and playback. Recordings are saved as MP4 files for playback on nearly every device.

Direct monitoring on an HDMI display

Easily play recordings with a connected HDMI display using the QVR Smart Client. Search for event recordings within a time period and detection area specified in the user interface.

Leverage AI-based applications for value-added services

QVR Elite's surveillance footage can be processed by multiple QNAP AI-based video analytics applications (e.g. QVR Face, QVR Human, QVR DoorAccess) to empower your surveillance systems with smart door access, facial recognition, human counting capabilities and more.

QVR Pro Client: Centralized monitoring and management

QVR Pro Client enables you to monitor multiple channels simultaneously. Flexibly switch between live view and playback mode to easily fulfill centralized monitoring and management.

Records using the MP4 video format

QVR Elite records video files in the universally-supported MP4 format, allowing for smooth playback on all your devices. In addition, you can conveniently back up recordings to other QTS / QuTS hero NAS or Cloud storage space using Hybrid Backup Sync or HybridMount.

Easy capacity expansion

You can create multiple recording spaces for QVR Elite recordings. If you run out of storage space, you can easily expand your NAS storage by connecting to QNAP expansion enclosures.

Low cost: flexible subscription plan

QVR Elite is subscription-based, with monthly, yearly, and 3-year subscription plans. You can build a robust surveillance system with a low-cost monthly price of US $1.99 per channel. You can alter the subscription based on your needs to reach higher cost efficiency.

QuWAN SD-WAN solution for resilient IT infrastructure

QNAP's QuWAN SD-WAN solution features Auto Mesh VPN, IPsec encryption and cloud-centric management. Compatible with a wide range of QNAP solutions, QuWAN enables SMBs to efficiently build a dependable network at a cost-effective price, and to facilitate digital transformation, multi-site expansion and remote working.

Auto mesh VPN

Automatically establishes a mesh VPN and removes the need for manual static VPN settings.

WAN optimization

QuWAN adopts load balancing technologies to combine the bandwidth of different ISPs and to prioritize bandwidth utilization.

Cloud management

The QuWAN Orchestrator provides powerful and convenient central network management.

Cost optimization

Optimizes fiber/network transmission to lower the cost of VPN equipment and bandwidth expenses.

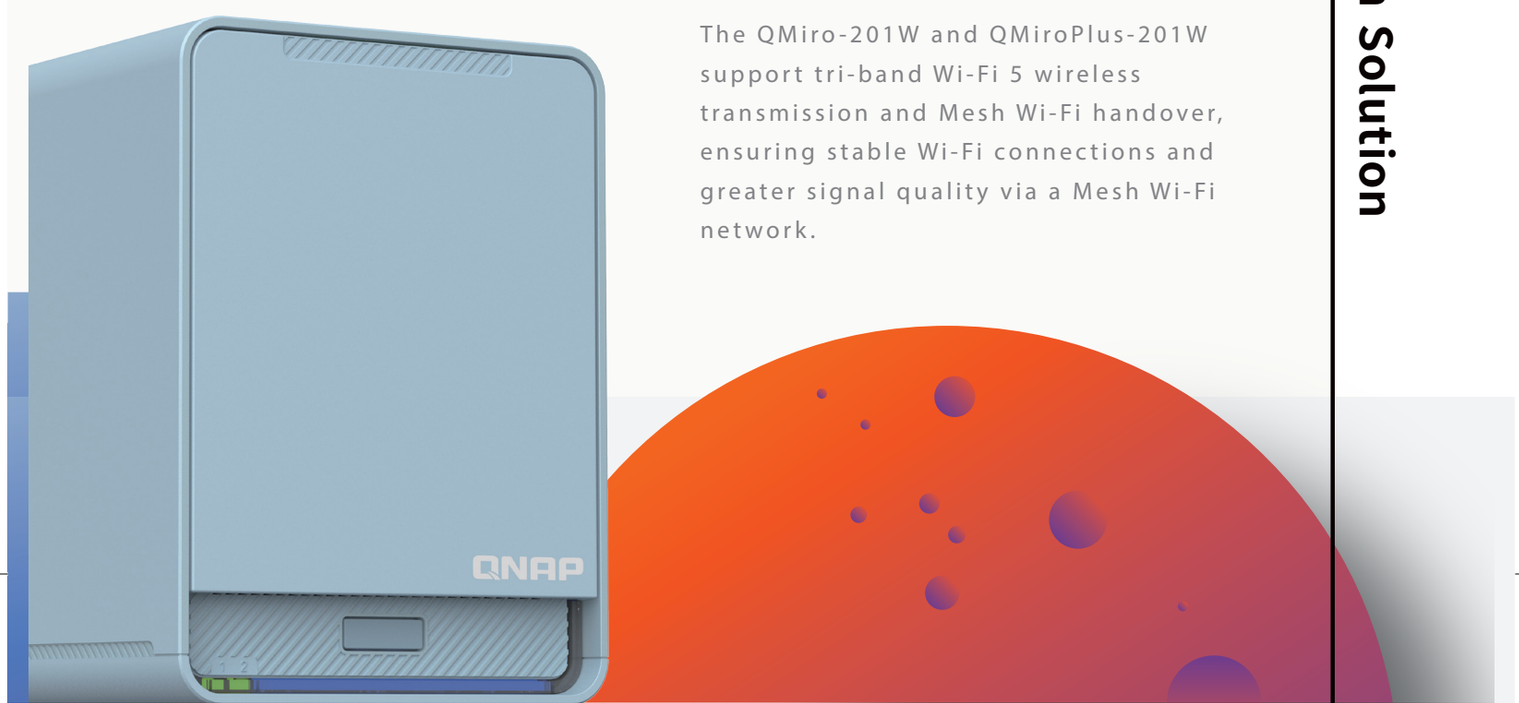
Network security

Adopts Deep Packet Inspection to analyze L7-Payloads for content information from websites and devices.

Web GUI

Provides user-friendly functionality, including a dashboard, eMap, traffic analysis, and more.

Enjoy a high-coverage Mesh Wi-Fi experience



The QMiro-201W and QMiroPlus-201W support tri-band Wi-Fi 5 wireless transmission and Mesh Wi-Fi handover, ensuring stable Wi-Fi connections and greater signal quality via a Mesh Wi-Fi network.

Connect your Home with High-Coverage Tri-Band Mesh Wi-Fi

QMiro-201W / QMiroPlus-201W adopts Wi-Fi Handover technology, allowing multiple users to be automatically connected to the router with the strongest Wi-Fi signal with a single SSID. With dual-band 2.4GHz/5GHz, QMiro-201W / QMiroPlus-201W provides a dedicated Mesh 5GHz frequency for high-bandwidth connections between Mesh Wi-Fi routers, guaranteeing smooth and stable Wi-Fi connections.

Dedicated Tri-band Mesh Wi-Fi for smooth connections

Supports tri-band Wi-Fi of 2.4GHz, 5GHz and a dedicated Mesh Wi-Fi 5GHz band for high-bandwidth connections between Mesh Wi-Fi routers. Unlike conventional dual-band routers whose 5GHz band must be shared between Wi-Fi clients and Mesh Wi-Fi routers, the QMiro-201W /QMiroPlus-201W guarantees smooth and stable Wi-Fi connections.

Flexible and economical storage expansion

Direct-Attached Storage (DAS) adds additional storage capacity to your PC by being directly connected via USB or another port. Compared with Network-Attached Storage (NAS), DAS is usually plug-and-use to a single PC and is suitable for users who seek to simply expand the storage of a single PC and not the advanced features and network connectivity of a NAS.

RAID Support

QNAP DAS supports various RAID levels to improve performance and data protection.

Simple Interface

The QNAP External RAID Manager helps you monitor the DAS system, drives, and health status. It automatically sends system alerts to your PC if an error occurs.

For NAS Expansion

QNAP DAS can be used with either USB Type-C, SATA, or SAS for faster data transfer and can be easily managed using QTS / QuTS hero Storage & Snapshots. The TL series is suited for NAS expansion.

Effortless Setup

The DAS is completely plug-and-use and does not require any network configuration. An eject button is included to quickly remove the DAS from the connected computer.

For PC Expansion

QNAP DAS are ideal choices for PC users looking to expand their storage space. They use a USB Type-C, SATA, or SAS port for faster data transfer and support software and hardware-controlled RAID configurations for flexible storage configuration.

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

QNAP's comprehensive range of PCIe cards and accessories allows users to upgrade core NAS/PC functionality to meet diverse needs and to maximize work efficiency and productivity.

Wired Network Adapters

- **QNA Series Adapters:** Connect to higher-speed networks over Thunderbolt™ 3 or USB 3.0
- **QM2 series PCIe cards:** Add M.2 SSDs and Network Ports to Your NAS
- **Network Expansion Card:** Flexibly add network ports and bandwidth to boost data transfer performance

Interface Cards

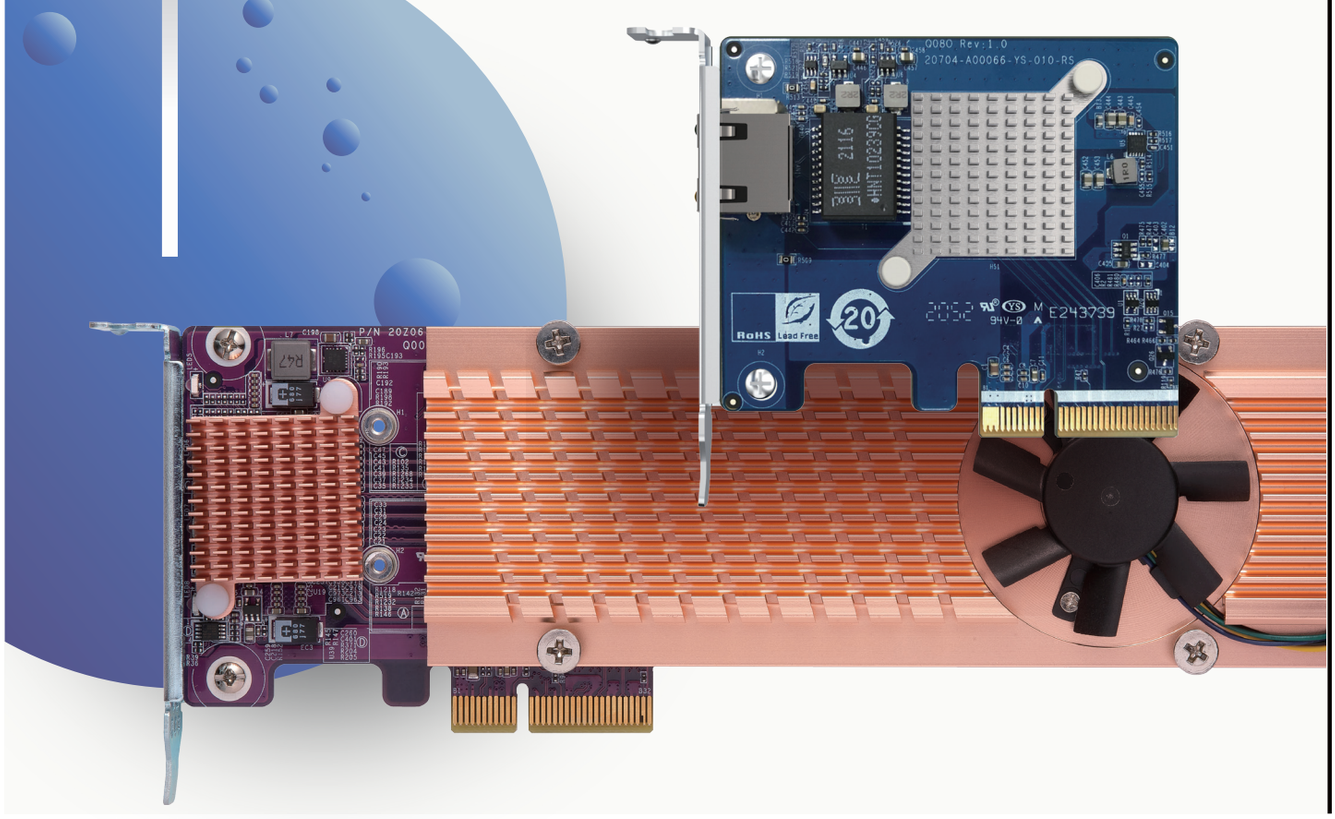
- **QXP SATA Expansion Card:** Expand storage of a PC, server, or QNAP NAS with easy installation
- **Thunderbolt™ 3 Expansion Card:** Transform your NAS into a Thunderbolt™ 3 NAS
- **M.2 Expansion Card:** Add M.2 SSDs to your NAS and PC
- **USB Expansion Card:** Increase USB transfer speed with a USB expansion card
- **Fibre Channel Expansion Card:** Add QNAP NAS to your existing Fibre Channel SAN environment at an affordable price point

Computing Accelerator Cards

- **Edge TPU Accelerator:** Affordably leverage AI acceleration for faster image recognition on your QNAP NAS
- **Computing Accelerator Card:** Boost performance to meet the demanding workloads

Drive Adapter

- 2.5-inch 6Gbps SAS to SATA drive adapter
- Use two M.2 PCIe NVMe SSD in a U.2 PCIe NVMe SSD drive bay for PC and NAS
- 6Gbps 2.5-inch SATA SSD to 3.5-inch SAS drive adapter
- Use an M.2 PCIe NVMe SSD in a U.2 PCIe NVMe SSD drive bay
- Use two 2.5-inch SATA drives in a single 3.5-inch SATA drive bay with RAID support
- Use two M.2 SATA SSDs in a single 2.5-inch SATA drive bay with RAID support



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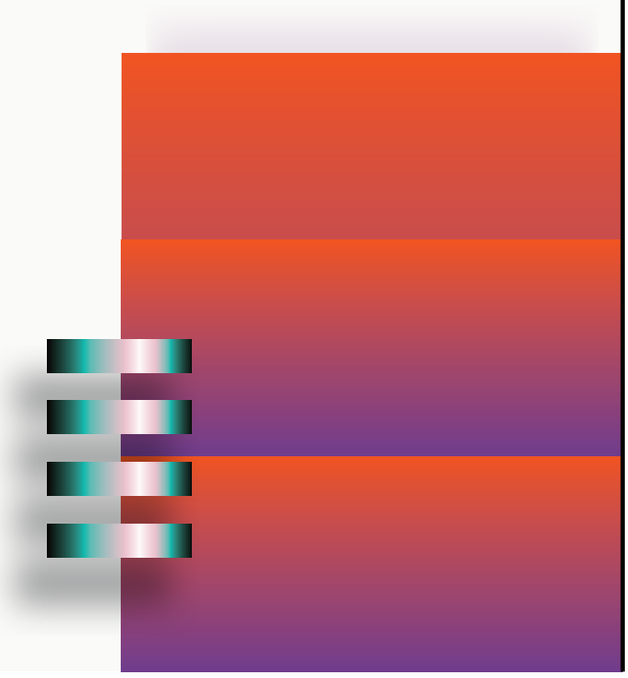
High-performance ZFS-based OS with greater reliability



	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-accelerated Transcoding	-			
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 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			
Hot-swappable	Yes			
M.2 Slot	-			
SSD Cache Acceleration Support	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			
Dimensions (HxWxD)	132 x 483.05 x 630.62			
Weight (Net)	25.83			
Operating temperature	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.			
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)			
Kensington Security Slot	-			

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	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 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.	
	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 fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	
	-	

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All flash storage.
ultimate performance

	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-accelerated Transcoding	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 Acceleration Support	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	
Dimensions (HxWxD)	88.3 x 481.07 x 515.02	
Weight (Net)	12.26	
Operating temperature	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.	
Fan	3 x 60mm, 12VDC	
Kensington Security Slot	-	

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	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	
	-	

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QuTS hero

High-performance ZFS-based OS with greater reliability

	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	AMD EPYC™ 7232P 8-core/16-thread processor, up to 3.2 GHz	
CPU Architecture	64-bit x86		64-bit x86		
Graphic Processors	-		-		
Floating Point Unit	Yes		-		
Encryption Engine	Yes (AES-NI)		Yes (AES-NI)		
Hardware-accelerated Transcoding	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 Acceleration Support	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		
Dimensions (HxWxD)	88.3 x 481.07 x 515.02		88.3 x 480.97 x 510.23		
Weight (Net)	12.26		15.2		
Operating temperature	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.		
Fan	3 x 60mm, 12VDC		4 x 60mm, 12VDC		
Kensington Security Slot	-		-		

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	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 fan: 3 x 60mm, 12VDC	System fan: 1 x 97mm, 12VDC CPU fan: 1 x 90mm, 12VDC
	-	Yes

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	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-accelerated Transcoding	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 Acceleration Support	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	
Dimensions (HxWxD)	231.9 x 292.9 x 319.8	234.6 x 369.9 x 319.8	
Weight (Net)	8.5	11.27	
Operating temperature	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.	
Fan	System fan: 2 x 80mm, 12VDC CPU fan: 1 x 90mm, 12VDC	System fan: 3 x 80mm, 12VDC CPU fan: 2 x 97mm, 12VDC	
Kensington Security Slot	Yes	Yes	

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	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 fan: 3 x 80mm, 12VDC CPU fan: 2 x 97mm, 12VDC	System fan: 3 x 80mm, 12VDC
	Yes	-

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	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-accelerated Transcoding	-	-	
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 Acceleration Support	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	
Dimensions (HxWxD)	130 x 481 x 573.5	88.3 x 482 x 562	
Weight (Net)	13.76	11.75	
Operating temperature	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.	
Fan	System fan: 4 x 92mm, 12VDC	System fan: 2 x 60mm, 12VDC	
Kensington Security Slot	-	-	

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	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 fan: 4 x 92mm, 12VDC	System fan: 4 x 92mm, 12VDC
	-	-

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	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-accelerated Transcoding	-		-	
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 Acceleration Support	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	
Dimensions (HxWxD)	88.3 x 482 x 562		43.3 x 482.6 x 505.54	
Weight (Net)	13.73		8.62	
Operating temperature	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.	
Fan	System fan: 2 x 70mm, 12VDC		System fan: 3 x 40mm, 12VDC	
Kensington Security Slot	-		-	

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	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
	-	-

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	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-accelerated Transcoding	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 Acceleration Support	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 manufacturered 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 manufacturered 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	
Dimensions (HxWxD)	89 x 482 x 425	89 x 482 x 425	
Weight (Net)	9.15	8.04	
Operating temperature	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.	
Fan	2 x 80mm, 12VDC	2 x 80mm, 12VDC	
Kensington Security Slot	-	-	

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	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 fan: 2 x 120mm CPU fan: 1 x 60mm
	Yes		Yes

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	188.2 x 264.3 x 280.8	188.2 x 199.3 x 280.8
Weight (Net)	5.78	5.03
Operating temperature	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.
Fan	System fan: 2 x 92mm CPU fan: 1 x 60mm	System fan: 1 x 120mm CPU fan: 1 x 60mm
Kensington Security Slot	Yes	-

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High-speed 25GbE networking

	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-accelerated Transcoding	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 Acceleration Support	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	
Dimensions (HxWxD)	88.3 x 481.07 x 515.02		88.3 x 480.97 x 510.23	
Weight (Net)	12.26		15.2	
Operating temperature	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.	
Fan	3 x 60mm, 12VDC		4 x 60mm, 12VDC	
Kensington Security Slot	-		-	

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	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 complaint)	Yes
Fan	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
Dimensions (HxWxD)	43.5 x 285 x 237.7
Weight (Net)	2.15

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10GbE connectivity: The future is now!

	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	132 x 483.05 x 630.62	132 x 483.05 x 630.62
Weight (Net)	25.83	25.83
Operating temperature	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.
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)
Kensington Security Slot	-	-

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	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 fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)
	-	-

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	88.3 x 483 x 545.1	88.3 x 482 x 549.7
Weight (Net)	27.41	12.73
Operating temperature	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.
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	System fan: 3 x 60mm, 12VDC
Kensington Security Slot	-	-

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	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 fan: 3 x 60mm, 12VDC	System fan: 3 x 60mm, 12VDC
	-	-

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	234.6 x 369.9 x 319.8	303.84 x 369.89 x 319.8
Weight (Net)	11.27	13.41
Operating temperature	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.
Fan	System fan: 3 x 80mm, 12VDC CPU fan: 2 x 97mm, 12VDC	System fan: 3 x 80mm, 12VDC CPU fan: 2 x 97mm, 12VDC
Kensington Security Slot	Yes	Yes

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	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 fan: 3 x 80mm, 12VDC	System fan: 4 x 92mm, 12VDC
	-	-

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	88.3 x 482 x 562	88.3 x 482 x 562
Weight (Net)	11.75	11.75
Operating temperature	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.
Fan	System fan: 2 x 60mm, 12VDC	System fan: 2 x 60mm, 12VDC
Kensington Security Slot	-	-

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	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 fan: 4 x 92mm, 12VDC	System fan: 4 x 92mm, 12VDC
	-	-

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	88.3 x 482 x 562	43.3 x 482.6 x 507.54
Weight (Net)	11.75	8.63
Operating temperature	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.
Fan	System fan: 2 x 60mm, 12VDC	System fan: 3 x 40mm, 12VDC
Kensington Security Slot	-	-

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	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 fan: 3 x 40mm, 12VDC	System fan: 2 x 60mm, 12VDC
	-	-

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	88.3 x 482 x 562	43.3 x 482.6 x 505.54
Weight (Net)	10.39	8.62
Operating temperature	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.
Fan	System fan: 2 x 60mm, 12VDC	System fan: 3 x 40mm, 12VDC
Kensington Security Slot	-	-

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	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 fan: 2 x 70mm, 12VDC	System fan: 1 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan
	-	Yes

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	188.2 x 264.3 x 279.6	188.2 x 329.3 x 279.6
Weight (Net)	6.553	7.06
Operating temperature	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.
Fan	System fan: 1 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 2 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan
Kensington Security Slot	Yes	Yes

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	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 fan: 2 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 2 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan
	Yes	Yes

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	188.2 x 264.3 x 279.6	188.2 x 264.3 x 279.6
Weight (Net)	6.553	6.553
Operating temperature	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.
Fan	System fan: 2 x 92mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 2 x 92mm, 12VDC CPU fan: 2 x 60mm blower fan
Kensington Security Slot	Yes	Yes

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

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	188.2 x 199.3 x 279.6	176.15 x 481.04 x 672.02
Weight (Net)	5.4	22.66
Operating temperature	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.
Fan	System fan: 1 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 4 x 92mm, 12VDC
Kensington Security Slot	Yes	-

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	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 fan: 4 x 92mm, 12VDC	System fan: 2 x 70mm, 12VDC
	-	-

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	88.3 x 482 x 562	43.3 x 482.6 x 505.54
Weight (Net)	13.73	8.62
Operating temperature	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.
Fan	System fan: 2 x 70mm, 12VDC	System fan: 3 x 40mm, 12VDC
Kensington Security Slot	-	-

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	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

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	89 x 482 x 534	89 x 482 x 534
Weight (Net)	11.34	10.94
Operating temperature	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.
Fan	2 x 70mm, 12VDC	2 x 70mm, 12VDC
Kensington Security Slot	-	-

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	TS-832PXU	TS-432PXU-RP
	TS-832PXU-4G	TS-432PXU-RP-2G
z	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
	-	-

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	44 x 439 x 499	169 x 160 x 219
Weight (Net)	6.53	2.01
Operating temperature	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.	-
Fan	2 x 40mm, 12VDC	1 x 120mm, 12VDC
Kensington Security Slot	-	Yes

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	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 fan: 2 x 120mm, 12VDC CPU fan: 1 x 60mm
	Yes	Yes

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	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-accelerated Transcoding	-	-
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 Acceleration Support	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
Dimensions (HxWxD)	169 x 160 x 219	44 x 439 x 291
Weight (Net)	2.01	4.15
Operating temperature	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.
Fan	1 x 120mm, 12VDC	System fan: 3 x 40mm, 12VDC
Kensington Security Slot	Yes	Yes

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	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

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	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
Fan	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	-	-
Dimensions (HxWxD)	46.65 x 285 x 236.6	46.65 x 285 x 236.6
Weight (Net)	2.2	2.16

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	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 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 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

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	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
Fan	-	-
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
Dimensions (HxWxD)	34 x 180 x145	34 x 180 x145
Weight (Net)	0.722	0.713

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	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 fan x 1	PWM double ball bearing fan 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 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 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

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	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
Fan	PWM double ball bearing fan x 1	PWM double ball bearing fan 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
Dimensions (HxWxD)	42.5, 290, 127	42.5 x 290 x 127
Weight (Net)	1.145	1.12

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	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 fan x 1	PWM double ball bearing fan 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

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	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	-
Fan	-	Fanless
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
Dimensions (HxWxD)	43.5 x 285 x 238	42.5, 290, 127
Weight (Net)	4.58	0.77

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	QSW-308S
	QSW-308S
	Unmanaged
	-
	Adapter
	36W
	AC
	100-240VAC, 50/60 Hz
	16K
	38Gbps
	76Gbps
	-
	-
	-
	Fanless
	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

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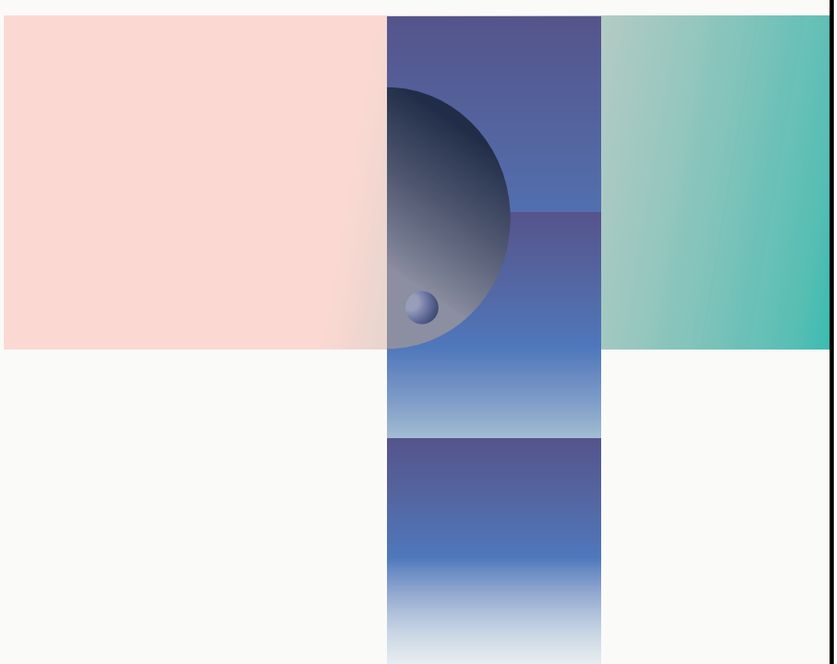
2.5GbE is not just for offices, but also for homes



	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	231.9 x 224.9 x 319.8	231.9 x 292.9 x 319.8
Weight (Net)	7.27	8.5
Operating temperature	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.
Fan	System fan: 1 x 97mm, 12VDC CPU fan: 1 x 90mm, 12VDC	System fan: 2 x 80mm, 12VDC CPU fan: 1 x 90mm, 12VDC
Kensington Security Slot	Yes	Yes

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	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

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	30 x 230 x 165	132 x 482 x 425
Weight (Net)	0.8	12
Operating temperature	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.
Fan	1 x system fan	3 x 80mm, 12VDC
Kensington Security Slot	Yes	-

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	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 manufacturered 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
	-	-

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	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-accelerated Transcoding	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 QNAP QM2 PCIe card	2 x M.2 2280 PCIe Gen 3 x1 or SATA 6Gb/s slots
SSD Cache Acceleration Support	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 manufacturered 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
Dimensions (HxWxD)	89 x 482 x 425	188.2 x 263.9 x 280.8
Weight (Net)	8.04	6.2
Operating temperature	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
Fan	2 x 80mm, 12VDC	3 x 80mm, 12VDC
Kensington Security Slot	-	Yes

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	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 fan: 2 x 120mm	System fan: 2 x 92mm
	Yes	Yes

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	188.2 x 199.3 x 280.8	169 x 160 x 219
Weight (Net)	5.03	2.01
Operating temperature	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.
Fan	System fan: 1 x 120mm CPU fan: 1 x 60mm	1 x 120mm, 12VDC
Kensington Security Slot	-	Yes

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	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

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	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-accelerated Transcoding	-
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 Acceleration Support	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
Dimensions (HxWxD)	169 x 102 x 219
Weight (Net)	'1.46
Operating temperature	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.
Fan	1 x70mm, 12VDC
Kensington Security Slot	Yes

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	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
Fan	Fanless	-
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
Dimensions (HxWxD)	34 x 180 x 145	34 x 180 x145
Weight (Net)	0.577	0.722

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	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
Fan	-	PWM double ball bearing fan 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
Dimensions (HxWxD)	34 x 180 x145	42.5 x 290 x 127
Weight (Net)	0.713	1.12

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	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 fan x 1	PWM double ball bearing fan 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

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	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
Fan	PWM double ball bearing fan 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
Dimensions (HxWxD)	43.5 x 285 x 234.8
Weight (Net)	2.08

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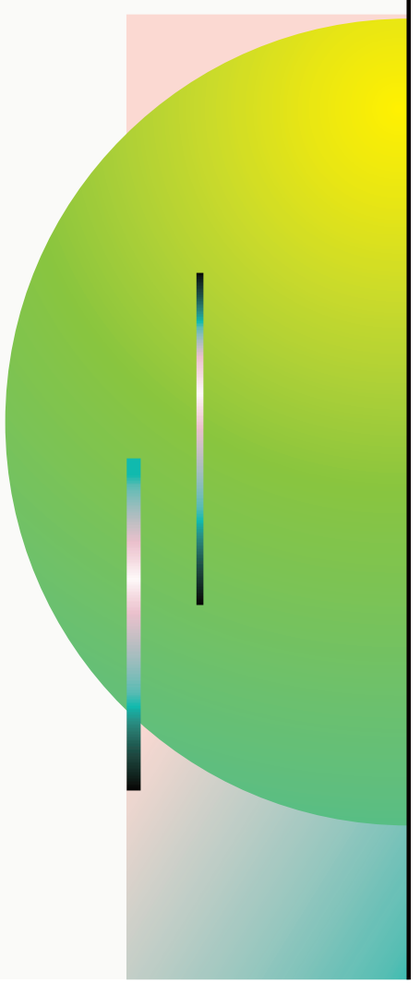
Breakthrough performance and outstanding connectivity with Thunderbolt NAS



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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	303.84 × 369.89 × 319.8	234.6 x 369.9 x 319.8
Weight (Net)	13.41	11.27
Operating temperature	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.
Fan	System fan: 3 x 80mm, 12VDC CPU fan: 2 x 97mm, 12VDC	System fan: 3 x 80mm, 12VDC CPU fan: 2 x 97mm, 12VDC
Kensington Security Slot	Yes	Yes

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

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	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-accelerated Transcoding	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 Acceleration Support	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
Dimensions (HxWxD)	188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6
Weight (Net)	5.4	6.553
Operating temperature	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.
Fan	System fan: 1 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 2 x 92mm, 12VDC CPU fan: 2 x 60mm blower fan
Kensington Security Slot	Yes	Yes

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	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 fan: 2 x 92mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 2 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan
	Yes	Yes

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	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-accelerated Transcoding	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	"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 SATA 6Gb/s SSD slots (pre-installed QM2 PCIe card) The M.2 SSD is not included as standard.
SSD Cache Acceleration Support	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
Dimensions (HxWxD)	168 x 170 x 226
Weight (Net)	2.51
Operating temperature	0 ~ 40°C (32°F ~ 104°F)
Power Supply Unit	120W adapter, 100-240V
Power Consumption: Operating Mode, Typical	38.101
Fan	System: 1 x 120mm
Kensington Security Slot	Yes

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Easily build your personal cloud and access anywhere

	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-accelerated Transcoding	-	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 Acceleration Support	-	-	
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	
Dimensions (HxWxD)	187.5, 66.1, 157.6	188.64, 90.18, 156.26	
Weight (Net)	0.61	1.98	
Operating temperature	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.	
Fan	1 x 50mm, 12VDC	1 x 80mm, 12VDC	
Kensington Security Slot	-	-	

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	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 fan (12V DC)
	Yes	Yes

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	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-accelerated Transcoding	-	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 Acceleration Support	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	
Dimensions (HxWxD)	169 x 160 x 219	165.3 x 160 x 219.4	
Weight (Net)	2.01	2.09	
Operating temperature	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.	-	
Fan	1 x 120mm, 12VDC	1 x 120mm, 12VDC	
Kensington Security Slot	Yes	Yes	

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	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	

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	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-accelerated Transcoding	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 Acceleration Support	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	
Dimensions (HxWxD)	41.3 x 302 x 220	43.8 x 404 x 220	
Weight (Net)	1.56	2.4	
Operating temperature	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.	
Fan	-	-	
Kensington Security Slot	Yes	-	

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	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 fan
	Yes	Yes

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	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-accelerated Transcoding	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 Acceleration Support	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	
Dimensions (HxWxD)	168.5 x 102 x 225	
Weight (Net)	1.28	
Operating temperature	0 - 40 °C (32°F - 104°F)	
Power Supply Unit	60W/65W adapter, 100-240V	
Power Consumption: Operating Mode, Typical	18.09	
Fan	1 x 70mm, 12VDC	
Kensington Security Slot	Yes	

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	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	

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Next-generation intelligent IP surveillance and remote backup solution

	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	-
Fan	PWM double ball bearing fan 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
Dimensions (HxWxD)	43.5 x 285 x 234.8	44.2 x 435.2 x 327.7
Weight (Net)	2.08	4.37

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	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

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	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	-
Fan	PWM double ball bearing fan 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
Dimensions (HxWxD)	43.5 x 285 x 234.8	44.2 x 435.2 x 327.7
Weight (Net)	2.08	4.37

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	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

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	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
Fan	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
Dimensions (HxWxD)	47.2 x 436.2 x 326.2	130 x 295 x 224.8
Weight (Net)	4.41	4.08

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	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-accelerated Transcoding	-	-
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
Dimensions (HxWxD)	150 x 102 x 216	150 x 102 x 216
Weight (Net)	1.47	1.47
Operating temperature	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
Fan	1 x 70mm, 12VDC	1 x 70mm, 12VDC
Tray Locker	Yes	Yes

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	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-accelerated Transcoding	-	-
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
Dimensions (HxWxD)	188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6
Weight (Net)	5.4	6.553
Operating temperature	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)	-	-
Fan	System fan: 1 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 2 x 92mm, 12VDC CPU fan: 2 x 60mm blower fan
Tray Locker	Yes	Yes

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	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 fan: 2 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan
	Yes

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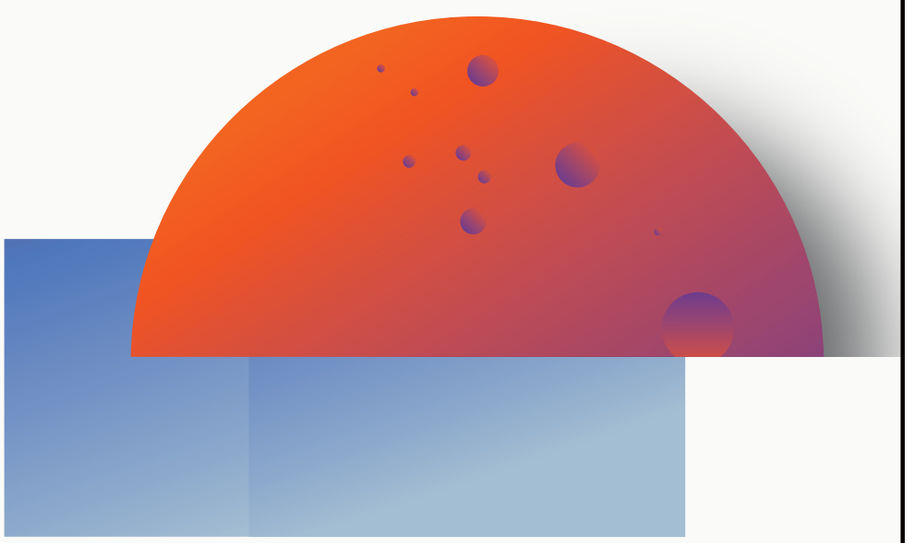
QuWAN SD-WAN solution for resilient IT infrastructure



	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
Operating Temperature	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)

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	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
	-

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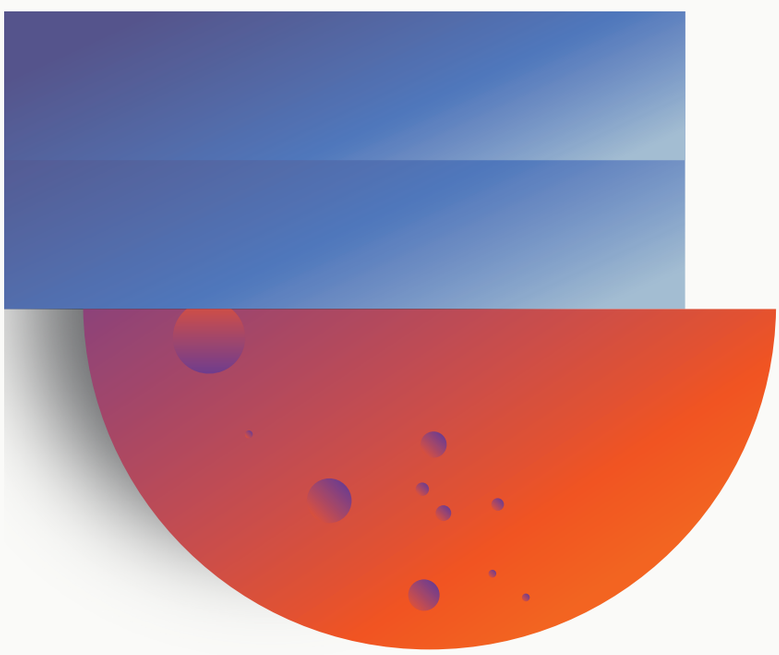
Enjoy a high-coverage Mesh Wi-Fi experience



	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
Operating Temperature	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)	-

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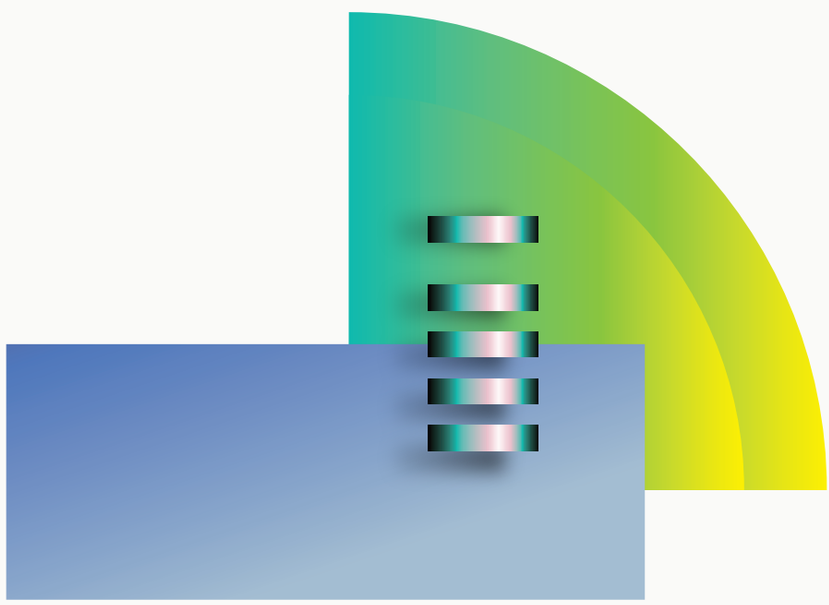
Flexible and economical storage expansion



	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
Dimensions (HxWxD)	188.2, 329.3, 281.4	88.6, 482, 562.5
Weight (Net)	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
Operating temperature	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.
Fan Mode Switch	Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)
Fan	2 x 120mm, 12VDC	2 x 70mm, 12VDC
Kensington Security Slot	Yes	-
Management	-	-

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	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
	-	-

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	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
Dimensions (HxWxD)	303.84, 369.89, 319.8	43.9, 438.9, 291.1
Weight (Net)	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
Operating temperature	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 polulated with Seagate ST6000NM0024 hard drives.
Fan Mode Switch	Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)
Fan	3 x 92mm, 12VDC	2 x 40mm, 12VDC
Kensington Security Slot	Yes	Yes
Management	-	-

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	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 polulated 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 fan control by detecting system and hard drive temperature 6. In-band SAS firmware update

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	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
Dimensions (HxWxD)	131.3, 482.2, 425.3	131.3, 482.2, 425.3
Weight (Net)	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" SAS12Gb/s 6Gb/s drives
Operating temperature	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.
Fan Mode Switch	-	-
Fan	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 fan control by detecting system and hard drive temperature 6. In-band SAS firmware update	Managed via NAS QES OS and JBOD Manager for Windows

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	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	-

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	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	-	-
Dimensions (HxWxD)	168.5 x 160.2 x 219	44 x 439 x 291
Weight (Net)	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
Operating temperature	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.
Fan Mode Switch	-	-
Fan	1 x 120mm, 12VDC	2 x 40mm, 12VDC
Kensington Security Slot	Yes	Yes
Management	-	-

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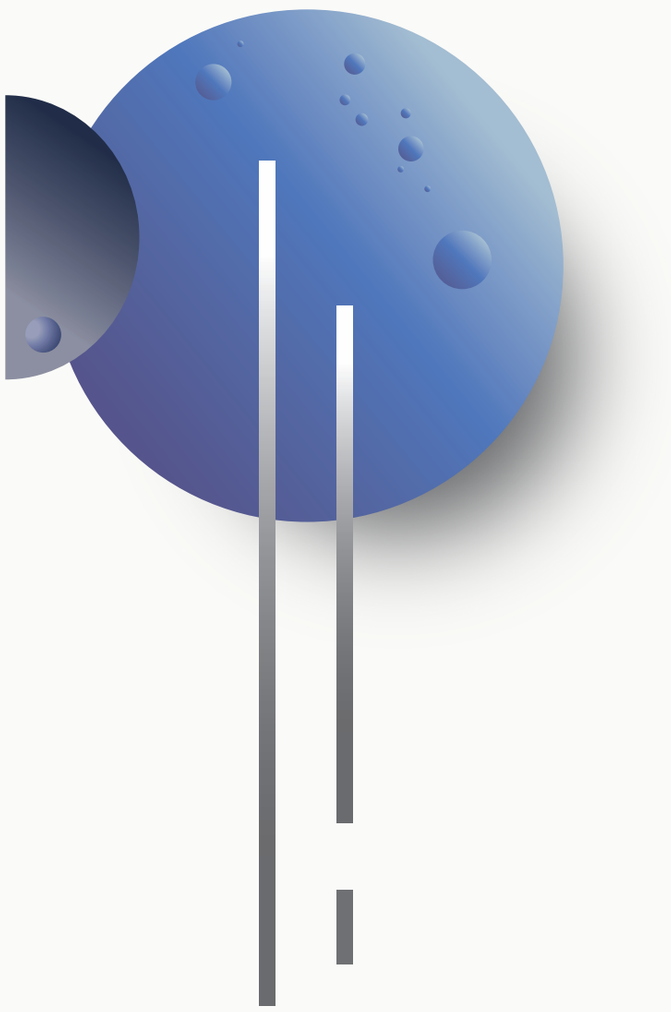
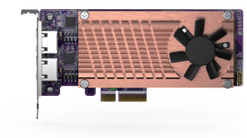
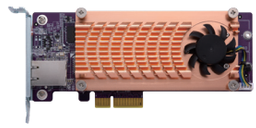
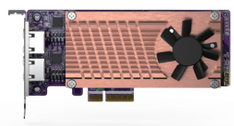
Versatile feature-rich accessories to enhance the performance of your system

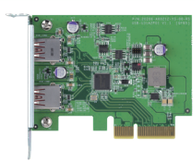


	QM2-2P2G2T	QM2-2P10G1TB
		
Model	QM2-2P2G2T	QM2-2P10G1TB
description	Dual M.2 2280 SATA SSD & dual-port 2.5GbE expansion card	Dual M.2 2280 PCIe NVMe SSD & single-port 10GbE expansion card

	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

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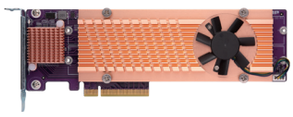
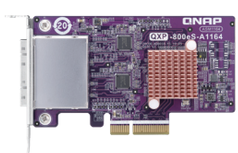
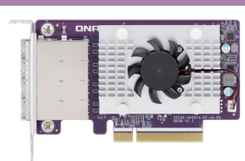
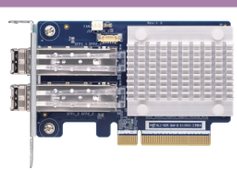
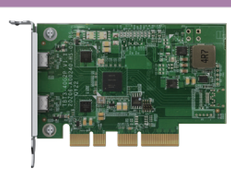
	QM2-4P-484	QM2-4P-484F
		
	QM2-4P-484	QM2-4P-484F
	Quad M.2 2280 PCIe Gen4 NVMe SSD expansion card; Low-profile	Quad M.2 2280 PCIe Gen4 NVMe SSD expansion card; Full-height

	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

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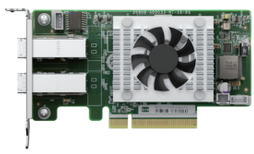
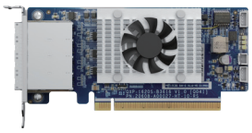
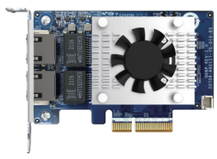
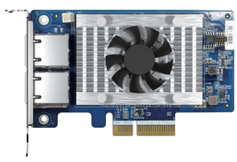
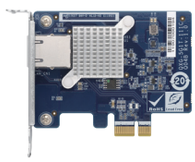
	QXP-820S-B3408	QXP-1620S-B3616W
		
Model	QXP-820S-B3408	QXP-1620S-B3616W
description	Dual-port External SAS 12Gb/s storage expansion card	Quad-port External SAS 12Gb/s storage expansion card

	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

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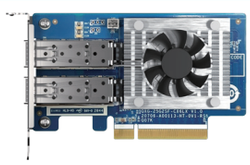
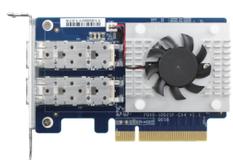
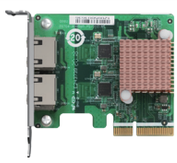
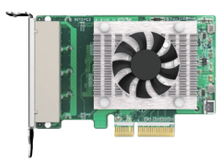
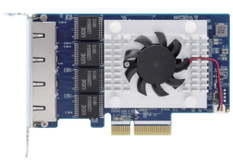
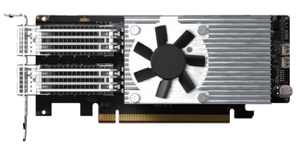
	QXG-25G2SF-CX6	QXG-10G2SF-CX4
		
	QXG-25G2SF-CX6	QXG-10G2SF-CX4
	Dual-port 25 GbE network expansion card	Dual-port 10 GbE network expansion card

	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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