



Product Selection Guide  
2023



## 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.



## 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 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.



## 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!



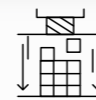
## Flash-optimized storage

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.

## ZFS

### 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

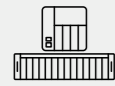


### Real-time SnapSync

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.



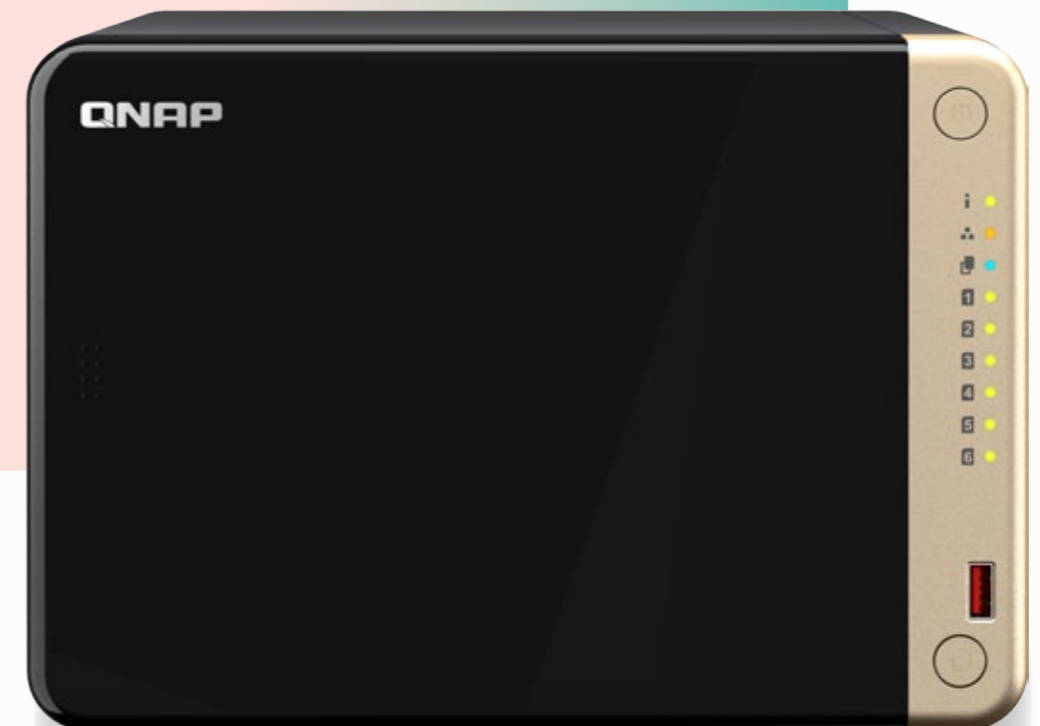
## 2.5 times faster

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



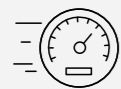
## More affordable

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.



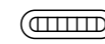
## Ultra-high speed transfer

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.



## 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.



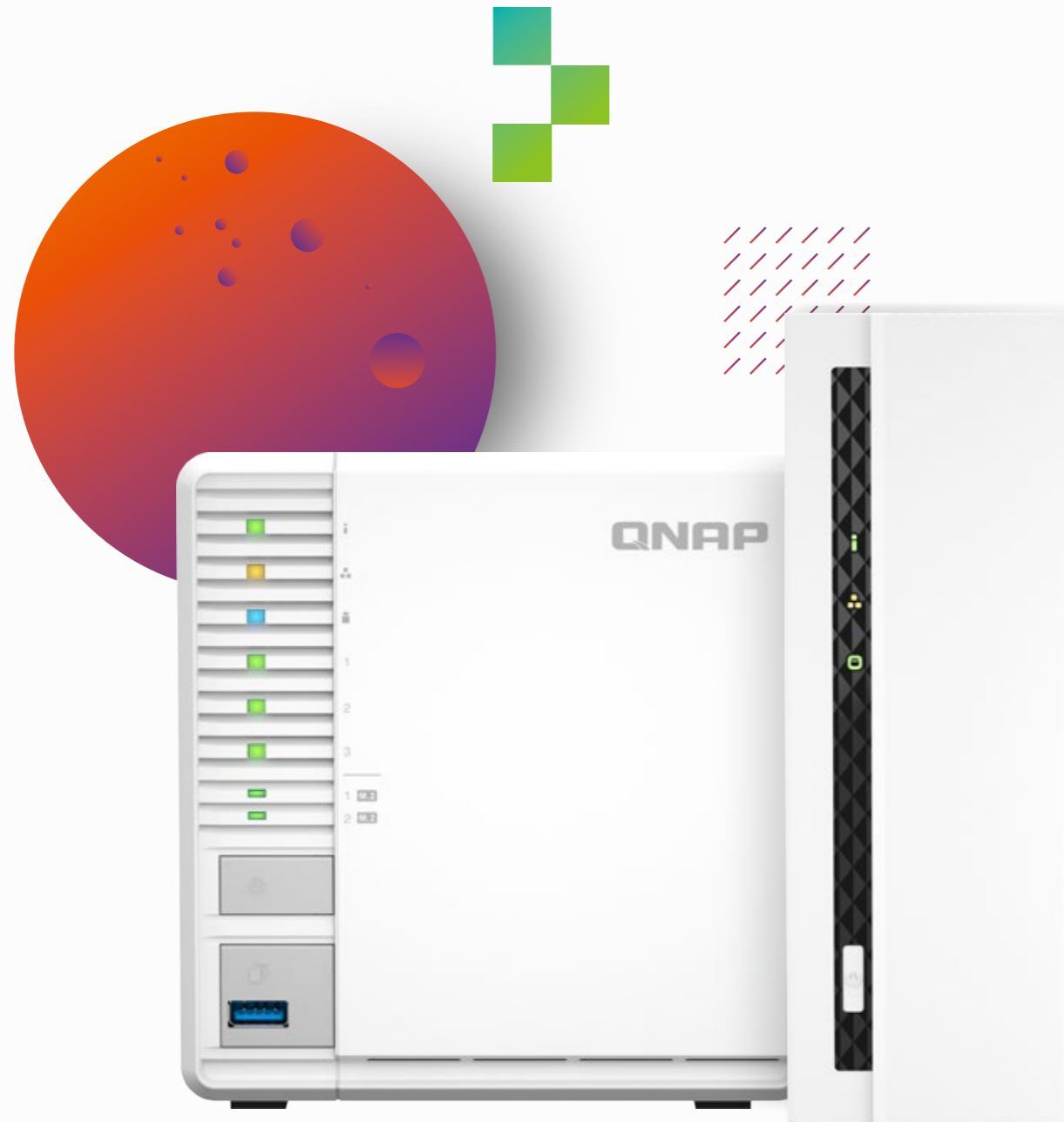
## Collaboration station for Mac and Windows

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.



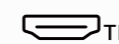
## Easy and secure remote connection with myQNAPcloud

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.



# 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.

# ADRA Network Detection and Response (NDR) appliances

The QNAP ADRA series Network Detection and Response (NDR) appliances selectively screen network traffic and detect malware lateral movement, stopping hostile activities before data leakage and encryption can occur.



## The rapid-screening ADRA NDR cybersecurity appliances

The ADRA NDR precisely pinpoint malware activities on your local network without impacting performance. The proprietary rapid-screening mechanism employed in the ADRA NDR detects potentially malicious activities based on a set of criteria and responds to these anomalies according to defined policies. This greatly improves the security of your network without impacting performance.



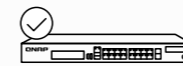
### Threat detection

The ADRA NDR is equipped with deep analysis features that allow in-depth inspections for malware and vulnerability exploits. The ADRA NDR is also capable of simulating a threat trap for malware to initiate attacks. Once the malware becomes active, hostile behaviors will be detected by the cybersecurity appliance and actions will be taken.



### Threat analysis

Once suspicious activities are captured by Threat Detection, network traffic packets are analyzed against a collection of rules to determine the attack type. Different detection events over time will be evaluated against each other to determine their relations as an additional criterion for evaluating associated risk levels.



### Threat response

Automatically isolate affected devices only to contain the malware attack to a smaller range, without shutting down the entire network. IT administrators can take a series of actions (such as isolating or temporarily allowing) to flexibly tackle operational needs.



# 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.



## Cloud management

The QuWAN Orchestrator provides powerful and convenient central network management.



## Network security

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



## WAN optimization

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



## Cost optimization

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



## 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.

# 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.



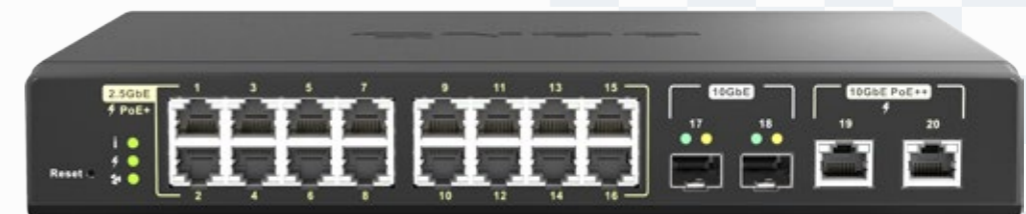
## Easy capacity expansion

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.



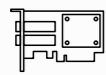
# Versatile feature-rich accessories to enhance the performance of your system

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



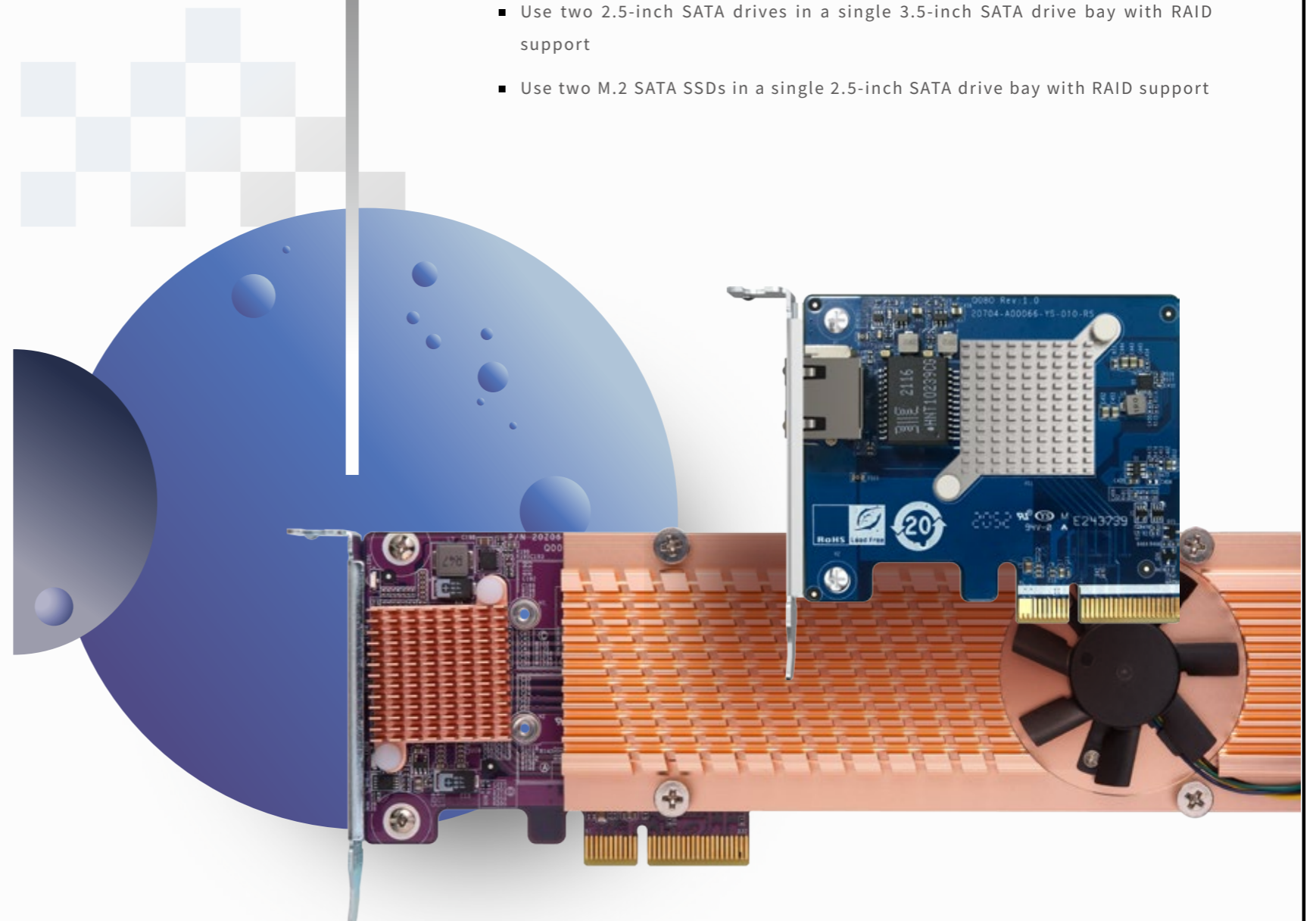
## Computing Accelerator Cards

- **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

- 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



# QNAP Product Lineup

**Dual Controller**

**All flash NAS**

**25GbE NAS Solution**

**10GbE NAS Solution**

**2.5GbE NAS Solution**

**Thunderbolt NAS Solution**

**Personal Cloud**



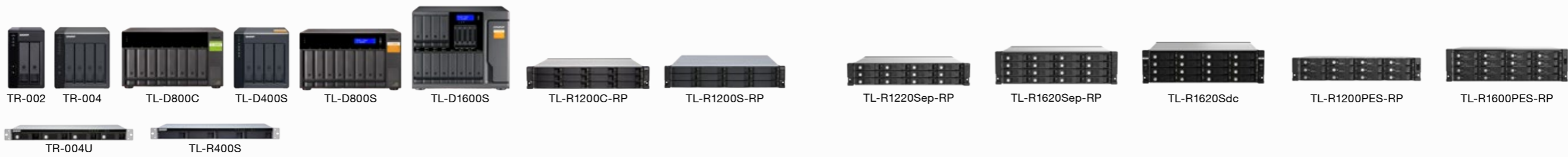








## External Enclosures (DAS)



## Managed & Unmanaged Switch Series



## Router



## Surveillance & Smart Video



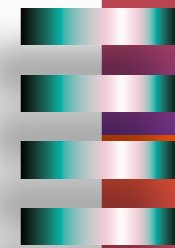
## SD-WAN & ADRA Solution



## Accessories





High-performance  
ZFS-based OS  
with greater reliability





	ES1686dc				ES2486dc	
						
Model	ES1686dc-2142IT-128G	ES1686dc-2142IT-96G	ES1686dc-2123IT-64G		ES2486dc-2142IT-128G	ES2486dc-2142IT-96G
Operating System	QES				QES	
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		Intel® Xeon® D-2142IT 8-core 1.90 GHz processor, up to 3.0 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	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		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				24 x 2.5-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				2U Rackmount	
Dimensions (HxWxD mm)	132 x 483.05 x 630.62				88.3 x 483 x 545.1	
Net Weight (kg)	25.83				27.41	
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;700W	
Power Consumption (w): Operating Mode, Typical	500.87				579.59	
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	-				-	

All flash storage.  
ultimate performance



	TS-h3088XU-RP			TS-h2490FU	
					
Model	TS-h3088XU-RP-W1270-64G	TS-h3088XU-RP-W1250-32G		TS-h2490FU-7302P-128G	TS-h2490FU-7232P-64G
Operating System	QTS / QuTS hero			QTS / QuTS hero	
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			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			24 x 2.5-inch U.2 PCIe NVMe	
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 a PCIe adapter			-	
10 Gigabit Ethernet Port	Optional via a PCIe adapter			-	
25 Gigabit Ethernet Port	2 x 25GbE SFP28 SmartNIC port			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.	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.
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 mm)	88.3 x 481.07 x 515.02			88.3 x 480.97 x 510.23	
Net Weight (kg)	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 (w): Operating Mode, Typical	261.81			277.64	
Fan	3 x 60mm, 12VDC			4 x 60mm, 12VDC	
Kensington Security Slot	-			-	

	TS-h1090FU				TS-h1290FX		
							
Model	TS-h1090FU-7302P-256G (By Request)	TS-h1090FU-7302P-128G	TS-h1090FU-7232P-64G		TS-h1290FX-7302P-256G (By Request)	TS-h1290FX-7302P-128G	TS-h1290FX-7232P-64G
Operating System	QTS / QuTS hero				QTS / QuTS hero		
CPU	AMD EPYC™ 7302P 16-core/32-thread processor, up to 3.3 GHz		AMD EPYC™ 7232P/7252 8-core/16-thread processor, up to 3.2 GHz		AMD EPYC™ 7302P 16-core/32-thread processor, up to 3.3 GHz		AMD EPYC™ 7232P/7252 8-core/16-thread processor, up to 3.2 GHz
CPU Architecture	64-bit x86				64-bit x86		
Graphic Processors	-				-		
Floating Point Unit	-				-		
Encryption Engine	Yes (AES-NI)				Yes (AES-NI)		
Hardware-accelerated Transcoding	-				-		
System Memory	256 GB RDIMM DDR4 ECC (8 x 32 GB)	128 GB RDIMM DDR4 ECC (8 x 16 GB)	64 GB RDIMM DDR4 ECC (8 x 8 GB)		256 GB RDIMM DDR4 ECC (8 x 32 GB)	128 GB RDIMM DDR4 ECC (8 x 16 GB)	64 GB RDIMM DDR4 ECC (8 x 8 GB)
Maximum Memory	1 TB+ (12 x 128 GB)				1 TB (8 x 128 GB)		
Memory Slot	12 x RDIMM DDR4				8 x RDIMM DDR4		
Drive Bay	10 x 2.5-inch U.2 PCIe NVMe / SATA 6Gbps				12 x 2.5-inch		
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)	2 (2.5G/1G/100M/10M)				2 (2.5G/1G/100M/10M)		
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	2 x 25GbE SFP28 SmartNIC port				2 x 25GbE SFP28 SmartNIC port		
Thunderbolt Port	-				-		
PCIe Slot	2 Slot 1: PCIe Gen4 x16 Slot 2: PCIe Gen4 x16 For low profile PCIe cards only.				4 Slot 1: PCIe Gen 4 x16 Slot 2: PCIe Gen 4 x16 Slot 3: PCIe Gen 4 x8 Slot 4: PCIe Gen 4 x16		
USB 2.0 port	-				-		
USB 3.2 Gen 1 port	3				3		
USB 3.2 Gen 2 (10Gbps) port	-				-		
HDMI Output	-				-		
Form Factor	Rackmount				Tower		
Dimensions (HxWxD mm)	44 x 430 x 580				150 x 368 x 362		
Net Weight (kg)	10.42				8.99		
Operating Temperature	0 - 40 °C (32°F - 104°F)				0 - 40 °C (32°F - 104°F)		
Power Supply Unit	550W PSU (x2), AC 100-240 V				750W, 100-240V		
Power Consumption (w): Operating Mode, Typical	157.97				134.41		
Fan	5 x 60mm, 12VDC				2 x 92mm, 12VDC		
Kensington Security Slot	-				Yes		

	TDS-h2489FU				TDS-h2489FU	
						
Model	TDS-h2489FU-4314-1TB (By Request)	TDS-h2489FU-4314-512G (By Request)	TDS-h2489FU-4314-256G		TDS-h2489FU-4314-128G	TDS-h2489FU-4309Y-64G
Operating System	QTS / QuTS hero				QTS / QuTS hero	
CPU	2 x Intel® Xeon® Silver 4314 16-core/32-thread processor, up to 3.4 GHz		2 x Intel® Xeon® Silver 4314 16-core/32-thread processor, up to 3.4 GHz		2 x Intel® Xeon® Silver 4314 16-core/32-thread processor, up to 3.4 GHz	2 x Intel® Xeon® Silver 4309Y 8-core/16-thread processor, up to 3.6 GHz
CPU Architecture	64-bit x86				64-bit x86	
Graphic Processors	-				-	
Floating Point Unit	-				-	
Encryption Engine	Yes (AES-NI)				Yes (AES-NI)	
Hardware-accelerated Transcoding	-				-	
System Memory	1 TB RDIMM DDR4 ECC (32 x 32 GB)	512 GB RDIMM DDR4 ECC (16 x 32 GB)	256 GB RDIMM DDR4 ECC (8 x 32 GB)		128 GB RDIMM DDR4 ECC (8 x 16 GB)	64 GB RDIMM DDR4 ECC (8 x 8 GB)
Maximum Memory	-				-	
Memory Slot	32 x RDIMM DDR4 ECC (16 x slots per socket)				32 x RDIMM DDR4 ECC (16 x slots per socket)	
Drive Bay	24 x 2.5-inch				24 x 2.5-inch	
Hot-swappable	Yes				Yes	
M.2 Slot	2 Slot 1: M.2 2280 NVMe PCIe Gen 3 x4 or SATA 6Gb/s Slot 2: M.2 2280 NVMe PCIe Gen 3 x2 or SATA 6Gb/s				2 Slot 1: M.2 2280 NVMe PCIe Gen 3 x4 or SATA 6Gb/s Slot 2: M.2 2280 NVMe PCIe Gen 3 x2 or SATA 6Gb/s	
SSD Cache Acceleration Support	Yes				Yes	
Gigabit Ethernet Port (RJ45)	-				-	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	4 (2.5G/1G/100M/10M)				4 (2.5G/1G/100M/10M)	
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	2 x 25GbE SFP28 SmartNIC port				2 x 25GbE SFP28 SmartNIC port	
Thunderbolt Port	-				-	
PCIe Slot	2 Slot 1: PCIe Gen4 x16 Slot 2: PCIe Gen4 x8  *Slot 2 is preinstalled with a 25GbE network adapter.  **Slot 1 provides the width of PCIe Gen4 x16 when Slot 2 is not in use, and provides the width of PCIe Gen4 x8 when Slot 2 is in use.				2 Slot 1: PCIe Gen4 x16 Slot 2: PCIe Gen4 x8  *Slot 2 is preinstalled with a 25GbE network adapter.  **Slot 1 provides the width of PCIe Gen4 x16 when Slot 2 is not in use, and provides the width of PCIe Gen4 x8 when Slot 2 is in use.	
USB 2.0 port	-				-	
USB 3.2 Gen 1 port	4				4	
USB 3.2 Gen 2 (10Gbps) port	-				-	
HDMI Output	-				-	
Form Factor	Rackmount				Rackmount	
Dimensions (HxWxD mm)	88.3 x 446.2 x 713.2				88.3 x 446.2 x 713.2	
Net Weight (kg)	21.31				21.31	
Operating Temperature	0 - 35°C (32°F - 95°F)				0 - 35°C (32°F - 95°F)	
Power Supply Unit	1200W PSU(x2), 100-240Vac Max Wattage: 1200W@200-240Vac 1000W@100-127Vac				1200W PSU(x2), 100-240Vac Max Wattage: 1200W@200-240Vac 1000W@100-127Vac	
Power Consumption (w): Operating Mode, Typical	467.59				467.59	
Fan	6 x 60mm, 12VDC				6 x 60mm, 12VDC	
Kensington Security Slot	-				-	




10GbE connectivity:  
The future is now!



	TS-431XeU		TS-435XeU		TVS-h1288X	TVS-h1688X
						
Model	TS-431XeU-2G	TS-431XeU-8G	TS-435XeU-4G		TVS-h1288X-W1250-16G	TVS-h1688X-W1250-32G
Operating System	QTS		QTS		QTS / QuTS hero	QTS / QuTS hero
CPU	AnnapurnaLabs Alpine AL314 32-bit ARM® Cortex-A15 quad-core 1.7GHz processor		Marvell OCTEON TX2™ CN9130 / CN9131 ARMv8 Cortex-A72 4-core 2.2GHz processor		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	32-bit ARM		64-bit ARM		64-bit x86	64-bit x86
Graphic Processors	-		-		Intel® UHD Graphics P630	Intel® UHD Graphics P630
Floating Point Unit	Yes		Yes		Yes	Yes
Encryption Engine	Yes		Yes		Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	-		-		Yes	Yes
System Memory	2 GB SODIMM DDR3 (1 x 2 GB)	8 GB SODIMM DDR3 (1 x 8 GB)	4 GB SODIMM DDR4 (1 x 4GB)		16 GB ECC UDIMM DDR4 (2 x 8 GB)	32GB ECC UDIMM DDR4 (2 x 16 GB)
Maximum Memory	8 GB (1 x 8 GB)		32 GB (1 x 32 GB)		128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	1 x SO-DIMM DDR3		1 x SODIMM DDR4		4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s		4 x 3.5-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	12 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes		Yes		Yes	Yes
M.2 slot	-		2 x M.2 2280 PCIe Gen 3 x1 slots		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		Yes	Yes
Gigabit Ethernet Port (RJ45)	2		-		-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-		2 (2.5G/1G/100M)		4 (also support 10M)	4 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-		-		Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	1 x 10GbE SFP+		2 x 10GbE SFP+		2 x 10GBASE-T (10G/1G)	2 x 10GBASE-T (10G/1G)
25 Gigabit Ethernet Port	-		-		Optional via a PCIe adapter	Optional via a PCIe 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	-		2		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	-		2		-	-
USB 3.2 Gen 1 port	4		-		-	-
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	-		1U Rackmount		1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)
Form Factor	1U Rackmount		-		Tower	Tower
Dimensions (HxWxD mm)	44 x 439 x 291		43.3 × 430 × 292.12		234.6 x 369.9 x 319.8	303.84 x 369.89 x 319.8
Net Weight (kg)	4.15		4.17		11.27	13.41
Operating temperature	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)		0 - 40°C (32°F - 104°F)	0 - 40°C (32°F - 104°F)
Power Supply Unit	Open-frame 100W, Input: 100V-240V ~ / 3.5A, 50Hz-60Hz		100W PSU, 100-240V		550W PSU, 100~240V	550W PSU, 100~240V
Power Consumption (w): Operating Mode, Typical	30.99		30.878 W		97.492	108.67
Fan	System fan: 3 x 40mm, 12VDC		3 x 40mm, 12VDC		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		Yes	Yes



	TS-h987XU-RP	TS-h1887XU-RP		TS-h2287XU-RP		TS-h3087XU-RP
						
Model	TS-h987XU-RP-E2334-16G	TS-h1887XU-RP-E2334-16G	TS-h1887XU-RP-E2336-32G	TS-h2287XU-RP-E2336-32G	TS-h2287XU-RP-E2378-64G	TS-h3087XU-RP-E2378-64G
Operating System	QTS / QuTS hero	QTS / QuTS hero		QTS / QuTS hero		QTS / QuTS hero
CPU	Intel® Xeon® E-2334 4C 8T 3.4GHz, up to 4.8GHz	Intel® Xeon® E-2334 4C 8T 3.4GHz, up to 4.8GHz	Intel® Xeon® E-2336 6C 12T 2.9GHz, up to 4.8GHz	Intel® Xeon® E-2336 6C 12T 2.9GHz, up to 4.8GHz	Intel® Xeon® E-2378 8C 16T 2.6GHz, up to 4.8GHz	Intel® Xeon® E-2378 8C 16T 2.6GHz, up to 4.8GHz
CPU Architecture	64-bit x86	64-bit x86		64-bit x86		64-bit x86
Graphic Processors	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter
Floating Point Unit	Yes	Yes		Yes		Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)
Hardware-accelerated Transcoding	-	-		-		-
System Memory	16 GB ECC DDR4 (1 x 16 GB)	16 GB ECC DDR4 (1 x 16 GB)	32 GB ECC DDR4 (2 x 16 GB)	32 GB ECC DDR4 (2 x 16 GB)	64 GB ECC DDR4 (4 x 16 GB)	64 GB ECC DDR4 (4 x 16 GB)
Maximum Memory	128GB (4 x 32 GB)	128GB (4 x 32 GB)		128GB (4 x 32 GB)		128GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4		4 x Long-DIMM DDR4.		4 x Long-DIMM DDR4
Drive Bay	9 (4 x 3.5-inch SATA + 5 x 2.5-inch U.2 PCIe / SATA) 2.5-inch bays: #1: PCIe Gen3 x2 & SATA 6Gbps #2: PCIe Gen3 x2 & SATA 6Gbps #3: PCIe Gen3 x2 & SATA 6Gbps #4: PCIe Gen4 x4 & SATA 6Gbps #5: PCIe Gen4 x4 & SATA 6Gbps	18 (12 x 3.5-inch SATA + 6 x 2.5-inch SATA)		22 (16 x 3.5-inch SATA + 6 x 2.5-inch SATA)		30 (24 x 3.5-inch SATA + 6 x 2.5-inch SATA)
Hot-swappable	Yes	Yes		Yes		Yes
M.2 Slot	Optional via a QM2 PCIe adapter	Optional via a QM2 PCIe adapter	Optional via a QM2 PCIe adapter	Optional via a QM2 PCIe adapter		Optional via a QM2 PCIe adapter
SSD Cache Acceleration Support	Yes	Yes		Yes		Yes
Gigabit Ethernet Port (RJ45)	-	-		-		-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (2.5G/1G/100M)	2 (2.5G/1G/100M)		2 (2.5G/1G/100M)		2 (2.5G/1G/100M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter
10 Gigabit Ethernet Port	2 x 10GBASE-T (10G/5G/2,5G/1G/100M)	2 x 10GBASE-T (10G/5G/2,5G/1G/100M)		2 x 10GBASE-T (10G/5G/2,5G/1G/100M)		2 x 10GBASE-T (10G/5G/2,5G/1G/100M)
25 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter
Thunderbolt Port	-	-		-		-
PCIe Slot	1 x Gen4 x8	3 (2 x Gen4 x4 + 1 x Gen 4 x8)		3 (2 x Gen4 x4 + 1 x Gen 4 x8)		3 (2 x Gen4 x4 + 1 x Gen 4 x8)
USB 2.0 port	-	-		-		-
USB 3.2 Gen 1 port	-	-		-		-
USB 3.2 Gen 2 (10Gbps) port	4 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps	4 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps		4 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps		4 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps
HDMI Output	-	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter
Form Factor	1U Rackmount	2U Rackmount		3U Rackmount		4U Rackmount
Dimensions (HxWxD mm)	43.3 x 430 x 479	88.6 x 432 x 511.2		131.3 x 482.2 x 550.8		176.2 x 441.6 x 630.2
Net Weight (kg)	8.43	13		15.64		21.78
Operating Temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)
Power Supply Unit	2 x 300W PSU	2 x 550W PSU		2 x 550W PSU		2 x 800W PSU
Power Consumption (w): Operating Mode, Typical	120.58	148.94		228		219.03
Fan	4 x 40mm, 12VDC	4 x 60mm, 12VDC		3 x 60mm + 1 x 80mm, 12VDC		4 x 80mm, 12VDC
Kensington Security Slot	-	-		-		-

	TS-877XU-RP	TS-h1886XU-RP R2		TVS-472XT	TVS-672XT	TVS-872XT
						
Model	TS-877XU-RP-3600-8G	TS-h1886XU-RP-R2-D1622-32G		TVS-472XT-i3-4G	TVS-672XT-i3-8G	TVS-872XT-i5-16G
Operating System	QTS	QTS / QuTS hero		QTS / QuTS hero	QTS / QuTS hero	QTS / QuTS hero
CPU	AMD Ryzen™ 5 3600 6-core/12-thread processor, burst up to 4.2 GHz	Intel® Xeon® D-1622 4-core processor, burst up to 3.2 GHz		Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor	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		64-bit x86	64-bit x86	64-bit x86
Graphic Processors	-	-		Intel® UHD Graphics 630	Intel® UHD Graphics 630	Intel® UHD Graphics 630
Floating Point Unit	Yes	Yes		Yes	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	-	-		Yes	Yes	Yes
System Memory	8 GB UDIMM DDR4 (2 x 4GB)	32 GB UDIMM DDR4 ECC (2 x 16GB)		4 GB SODIMM DDR4 (1 x 4 GB)	8 GB SODIMM DDR4 (2 x 4 GB)	16 GB SODIMM DDR4 (2 x 8 GB)
Maximum Memory	64 GB (4 x 16 GB)	128 GB (4 x 32 GB)		64 GB ( 2 x 32 GB)	64 GB ( 2 x 32 GB)	64 GB ( 2 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x UDIMM DDR4		2 x SO-DIMM DDR4	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4
Drive Bay	8 x 3.5-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		4 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		Yes	Yes	Yes
M.2 slot	-			2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots
SSD Cache Acceleration Support	Yes	Yes		Yes	Yes	Yes
Gigabit Ethernet Port (RJ45)	2			2	2	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	Optional via a PCIe adapter	4 (2.5G/1G/100M)		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+ SmartNIC port Pre-installed with a 10GbE PCIe adapter		1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
25 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
Thunderbolt Port	-	-		2 (Thunderbolt™ 3)	2 (Thunderbolt™ 3)	2 (Thunderbolt™ 3)
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.	3 Slot 1: PCIe Gen 2 x4 (x8 Slot) Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x8 or x4 (x8 Slot) *Slot 3 is preinstalled with a 10GbE network adapter. **Slot 3 provides the width of PCIe Gen 3 x8 when Slot 2 is not in use, and provides the width of PCIe Gen 3 x4 when Slot 2 is in use.		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	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	4	2		1	1	1
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	-		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	2 x Type-C USB 3.2 Gen 2 10Gbps 2 x Type-A USB 3.2 Gen 2 10Gbps
HDMI Output	Optional via a PCIe adapter	-		1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	2U Rackmount	Rackmount		Tower	Tower	Tower
Dimensions (HxWxD mm)	88.3 x 482 x 562	88.3 x 482 x 549.7		188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6	188.2 x 329.3 x 279.6
Net Weight (kg)	13.31	12.73		5.4	6.553	7.06
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	300W (x2), 100-240V	550W(x2), 100-240V		250W, 100-240V	250W, 100-240V	250W, 100-240V
Power Consumption (w): Operating Mode, Typical	86.04	117.92		37.32	45.6	65.03
Fan	System fan: 2 x 70mm, 12VDC	System fan: 3 x 60mm, 12VDC		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	System fan: 2 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan
Kensington Security Slot	-	-		Yes	Yes	Yes

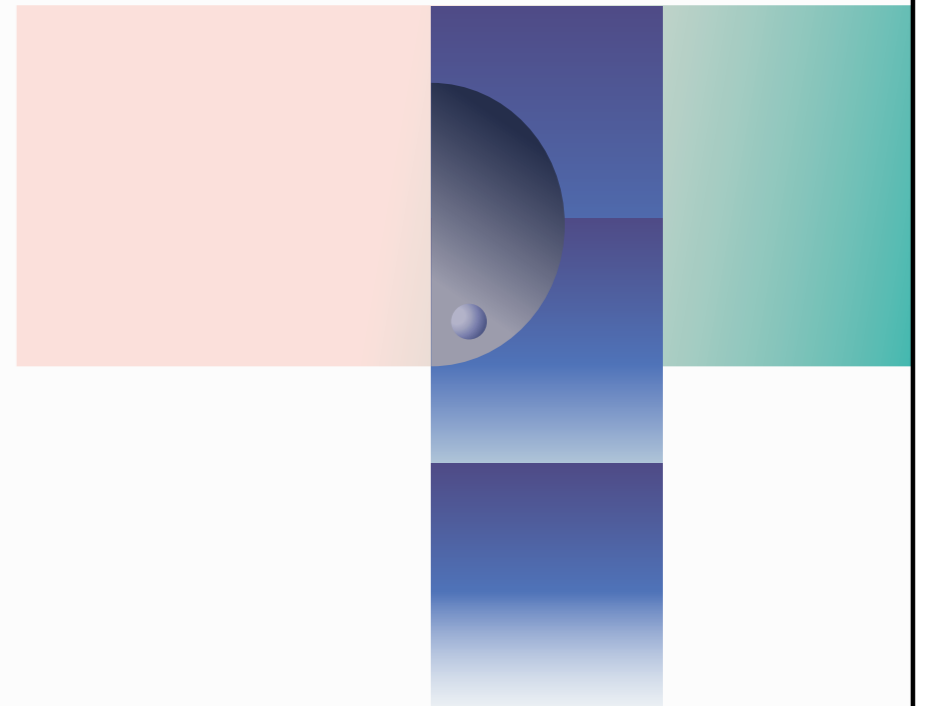
	TS-h1277XU-RP		TS-h1677XU-RP		TS-h2477XU-RP	TS-1232PXU-RP
						
Model	TS-h1277XU-RP-3700X-128G	TS-h1277XU-RP-3700X-32G	TS-h1677XU-RP-3700X-32G		TS-h2477XU-RP-3700X-32G	TS-1232PXU-RP-4G
Operating System	QTS / QuTS hero		QTS / QuTS hero		QTS / QuTS hero	QTS
CPU	AMD Ryzen™ 7 3700X 8-core/ 16-thread processor, burst up to 4.4 GHz	AMD Ryzen™ 7 3700X 8-core/ 16-thread processor, burst up to 4.4 GHz	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	AnnapurnaLabs Alpine AL324 64-bit ARM® Cortex-A57 quad-core 1.7GHz processor
CPU Architecture	64-bit x86		64-bit x86		64-bit x86	64-bit ARM
Graphic Processors	-		-		-	-
Floating Point Unit	Yes		Yes		Yes	Yes
Encryption Engine	Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)	Yes
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)		32 GB UDIMM DDR4 (2 x 16GB)	4 GB UDIMM DDR4 (1 x 4 GB)
Maximum Memory	128 GB (4 x 32 GB)		128 GB (4 x 32 GB)		128 GB (4 x 32 GB)	16 GB (1 x 16 GB)
Memory Slot	4 x Long-DIMM DDR4		4 x Long-DIMM DDR4		4 x Long-DIMM DDR4	1 x Long-DIMM DDR4
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s		16 x 3.5-inch SATA 6Gb/s, 3Gb/s		24 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes		Yes		Yes	Yes
M.2 slot	-		-		-	Optional via a PCIe adapter
SSD Cache Acceleration Support	Yes		Yes		Yes	Yes
Gigabit Ethernet Port (RJ45)	2		2		2	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	2 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	-
10 Gigabit Ethernet Port	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port		2 x 10GbE SFP+ SmartNIC port		2 x 10GbE SFP+ SmartNIC port	2 x 10GbE SFP+
25 Gigabit Ethernet Port	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	-
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		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 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	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		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-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	-
HDMI Output	-		-		-	-
Form Factor	2U Rackmount		3U Rackmount		4U Rackmount	2U Rackmount
Dimensions (HxWxD mm)	88.3 x 482 x 562		130 x 481 x 573.5		176.15 x 481.04 x 672.02	89 x 482 x 534
Net Weight (kg)	13.73		15.26		22.66	11.34
Operating temperature	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	300W (x2), 100-240V		500W(x2), 100-240V		800W(x2), 100-240V	250W (x2) PSU, 100 - 240V
Power Consumption (w): Operating Mode, Typical	106.66		136.45		143.97	83.57
Fan	System fan: 2 x 70mm, 12VDC		System fan: 4 x 92mm, 12VDC		System fan: 4 x 92mm, 12VDC	2 x 70mm, 12VDC
Kensington Security Slot	-		-		-	-




	TS-832PXU-RP	TS-832PXU		TS-432PXU-RP	TS-432PXU
					
Model	TS-832PXU-RP-4G	TS-832PXU-4G		TS-432PXU-RP-2G	TS-432PXU-2G
Operatingnng System	QTS	QTS		QTS	QTS
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		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		64-bit ARM	64-bit ARM
Graphic Processors	-	-		-	-
Floating Point Unit	Yes	Yes		Yes	Yes
Encryption Engine	Yes	Yes		Yes	Yes
Hardware-accelerated Transcoding	-	-		-	-
System Memory	4 GB UDIMM DDR4 (1 x 4 GB)	4 GB UDIMM DDR4 (1 x 4 GB)		2 GB UDIMM DDR4 (1 x 2 GB)	2 GB UDIMM DDR4 (1 x 2 GB)
Maximum Memory	16 GB (1 x 16 GB)	16 GB (1 x 16 GB)		16 GB (1 x 16 GB)	16 GB (1 x 16 GB)
Memory Slot	1 x Long-DIMM DDR4	1 x Long-DIMM DDR4		1 x Long-DIMM DDR4	1 x Long-DIMM DDR4
Drive Bay	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s		4 x 3.5" SATA 6Gb/s, 3Gb/s	4 x 3.5" SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		Yes	Yes
M.2 slot	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
SSD Cache Acceleration Support	Yes	Yes		Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-		-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	2 (also support 10M)		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+		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.		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		4	4
USB 3.2 Gen 2 (10Gbps) Port	-	-		-	-
HDMI Output	-	-		-	-
Form Factor	2U Rackmount	2U Rackmount		1U Rackmount	1U Rackmount
Dimensions (HxWxD mm)	89 x 482 x 534	89 x 482 x 534		44 x 439 x 499	44 x 439 x 499
Net Weight (kg)	10.94	9.45		8.12	6.53
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W (x2) PSU, 100 - 240V	250W PSU, 100 - 240V		250W (x2) PSU, 100 - 240V	250W PSU, 100 - 240V
Power Consumption (w): Operating Mode, Typical	69.191	56.412		53.343	39.558
Fan	2 x 70mm, 12VDC	2 x 70mm, 12VDC		2 x 40mm, 12VDC	2 x 40mm, 12VDC
Kensington Security Slot	-	-		-	-

	TS-431KX	TS-431X3		TS-932PX	TS-832PX
					
Model	TS-431KX-2G	TS-431X3-4G		TS-932PX-4G	TS-832PX-4G
Operating System	QTS	QTS		QTS	QTS
CPU	AnnapurnaLabs, an Amazon company Alpine AL214, 4-core, 1.7GHz	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz		AnnapurnaLabs Alpine AL324 ARM® Cortex-A57 quad-core 1.7GHz processor	AnnapurnaLabs Alpine AL324 ARM® Cortex-A57 quad-core 1.7GHz processor
CPU Architecture	32-bit ARM	32-bit ARM		64-bit ARM	64-bit ARM
Graphic Processors	-	-		-	-
Floating Point Unit	Yes	Yes		Yes	Yes
Encryption Engine	Yes	Yes		Yes	Yes
Hardware-accelerated Transcoding	-	-		-	-
System Memory	2 GB SODIMM DDR3 (1 x 2 GB)	4 GB SODIMM DDR3 (1 x 4 GB)		4 GB SODIMM DDR4 (1 x 4 GB)	4 GB SODIMM DDR4(1 x 4 GB)
Maximum Memory	8 GB (1 x 8 GB)	8 GB (1 x 8 GB)		16 GB (1 x 16 GB)	16 GB (1 x 16 GB)
Memory Slot	1 x SO-DIMM DDR3	1 x SO-DIMM DDR3		1 x SO-DIMM DDR4	1 x SO-DIMM DDR4
Drive Bay	4x 3.5-inch SATA 6Gb/s, 3Gb/s	4x 3.5-inch SATA 6Gb/s, 3Gb/s		5x 3.5-inch+ 4 x 2.5-inch SATA 6Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		Yes	Yes
M.2 slot	-	-		-	Optional via a PCIe adapter
SSD Cache Acceleration Support	Yes	Yes		Yes	Yes
Gigabit Ethernet Port (RJ45)	2	1		-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	1		2 (also support 10M)	2 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-		-	-
10 Gigabit Ethernet Port	1 x 10GbE SFP+	1 x 10GbE SFP+		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.
USB 2.0 port	-	-		-	-
USB 3.2 Gen 1 port	3	3		3	3
USB 3.2 Gen 2 (10Gbps) Port	-	-		-	-
HDMI Output	-	-		-	-
Form Factor	Tower	Tower		Tower	Tower
Dimensions (HxWxD mm)	169 x 160 x 219	169 x 160 x 219		182.7 x 224.6 x 224.1	188.2 x 329.3 x 280.8
Net Weight (kg)	2.01	2.01		3.39	6.38
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		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		External, 120 W, AC 100 to 240 V	250W, 100-240V AC, 50/60Hz, 3.5A
Power Consumption (w): Operating Mode, Typical	26.7	-		-	50.858
Fan	1 x 120mm, 12VDC	1 x 120mm, 12VDC		1 x 140mm, 12VDC	System fan: 2 x 120mm, 12VDC CPU fan: 1 x 60mm
Kensington Security Slot	Yes	Yes		Yes	Yes

	TS-i410X	TS-h973AX	
			
Model	TS-i410X-8G	TS-h973AX-32G	TS-h973AX-8G
Operating System	QTS	QTS / QuTS hero	
CPU	Intel® Atom® x6425E 4-core/4-thread processor, burst up to 3.0 GHz	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 for 10th Gen Intel® Processors	-	
Floating Point Unit	Yes	Yes	
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)	
Hardware-accelerated Transcoding	Yes	-	
System Memory	8 GB on board (non-expandable) Note: Reserves some RAM for use as shared graphics memory.	32 GB SO-DIMM DDR4 (2 x 16 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)
Maximum Memory	8 GB on board (non-expandable)	64 GB (2 x 32 GB)	
Memory Slot	-	2 x SO-DIMM DDR4 Support optional ECC memory	
Drive Bay	4 x 2.5-inch SATA 6Gb/s, 3Gb/s	5 x 3.5-inch + 4 x 2.5-inch	
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)	-	2	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	Optional via the QNA-UC5G1T USB to 5GbE network adapter	
10 Gigabit Ethernet Port	2 x 10GBASE-T (10G/5G/2.5G/1G)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	
25 Gigabit Ethernet Port	-	-	
Thunderbolt Port	-	-	
PCIe Slot	-	-	
USB 2.0 port	-	-	
USB 3.2 Gen 1 port	-	-	
USB 3.2 Gen 2 (10Gbps) Port	4	1 x Type-C USB 3.2 Gen 2 3 x Type-A USB 3.2 Gen 2	
HDMI Output	1, HDMI 1.4b (up to 3840 x 2160 @ 30Hz)	-	
Form Factor	Tower	Tower	
Dimensions (HxWxD mm)	65 x 180 x 254	182.65 x 224.6 x 224.1	
Net Weight (kg)	2.54	3.52	
Operating temperature	-40 - 70 °C (-40°F - 158°F)	0 - 40 °C (32°F - 104°F)	
Power Supply Unit	1. External Power Adapter, 90W and above, AC 100-240V 2. 9-36V DC input To avoid potential personal injury or component damage, DO NOT plug in two power inputs simultaneously.	External, 120 W, AC 100 to 240 V	
Power Consumption (w): Operating Mode, Typical	-	55.41	
Fan	-	1 x 140mm, 12VDC	
Kensington Security Slot	Yes	Yes	


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







	TVS-h474	TVS-h674			TVS-h874		
							
Model	TVS-h474-PT-8G	TVS-h674-i5-32G	TVS-h674-i3-16G		TVS-h874X-i9-64G	TVS-h874-i7-32G	TVS-h874-i5-32G
Operating System	QTS / QuTS hero	QTS / QuTS hero			QuTS hero / QTS	QuTS hero / QTS	QuTS hero / QTS
CPU	Intel® Pentium™ Gold G7400 2-core/ 4-thread 3.7 GHz Processor	Intel® Core™ i5-12400 6-core/ 12-thread Processor, burst up to 4.4 GHz	Intel® Core™ i3-12100 4-core/ 8-thread Processor, burst up to 4.3 GHz		Intel® Core™ i9 16-core (8P+8E) /24-thread Processor	Intel® Core™ i7 12-core (8P+4E) /20-thread Processor	Intel® Core™ i5-12400 6-core/12-thread Processor, burst up to 4.4 GHz
CPU Architecture	64-bit x86	64-bit x86			64-bit x86	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics 710	Intel® UHD Graphics 770	Intel® UHD Graphics 730		Intel® UHD Graphics 770	Intel® UHD Graphics 770	Intel® UHD Graphics 730
Floating Point Unit	Yes	Yes			Yes	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)			Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	Yes	Yes			Yes	Yes	Yes
System Memory	8 GB SODIMM DDR4 (1 x 8 GB)	32 GB SODIMM DDR4 (2 x 16 GB)	16 GB SODIMM DDR4 (1 x 16 GB)		64 GB SODIMM DDR4 (2 x 32 GB)	32 GB SODIMM DDR4 (2 x 16 GB)	32 GB SODIMM DDR4 (2 x 16 GB)
Maximum Memory	128 GB ( 2 x 64 GB)	128 GB ( 2 x 64 GB)			64 GB ( 2 x 32 GB)	64 GB ( 2 x 32 GB)	64 GB ( 2 x 32 GB)
Memory Slot	2 x SODIMM DDR4	2 x SODIMM DDR4			2 x SODIMM DDR4	2 x SODIMM DDR4	2 x SODIMM DDR4
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s			8 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes			Yes	Yes	Yes
M.2 Slot	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen4 x4 slots			2 x M.2 2280 PCIe Gen4 x4 slots	2 x M.2 2280 PCIe Gen4 x4 slots	2 x M.2 2280 PCIe Gen4 x4 slots
SSD Cache Acceleration Support	Yes	Yes			Yes	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-			-	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (2.5G/1G/100M/10M)	2 (2.5G/1G/100M/10M)			2 (2.5G/1G/100M/10M)	2 (2.5G/1G/100M/10M)	2 (2.5G/1G/100M/10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter			Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter			2 x 10GBASE-T	Optional via a PCIe adapter	Optional via a PCIe adapter
25 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter			Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
Thunderbolt Port	-	-			-	-	-
PCIe Slot	2 Slot 1: PCIe Gen 4 x16 (CPU) Slot 2: PCIe Gen 3 x2 (PCH)	2 Slot 1: PCIe Gen 4 x16 (CPU) Slot 2: PCIe Gen 4 x4 (PCH)			2 Slot 1: PCIe Gen 4 x16 Slot 2: PCIe Gen 4 x4	2 Slot 1: PCIe Gen 4 x16 Slot 2: PCIe Gen 4 x4	2 Slot 1: PCIe Gen 4 x16 Slot 2: PCIe Gen 4 x4
USB 2.0 port	-	-			-	-	-
USB 3.2 Gen 1 port	-	-			-	-	-
USB 3.2 Gen 2 (10Gbps) port	1 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 2 x Type-A USB 3.2 Gen 2 10Gbps			1 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 2 x Type-A USB 3.2 Gen 2 10Gbps	1 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)	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)			1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)
Form Factor	Tower	Tower			Tower	Tower	Tower
Dimensions (HxWxD mm)	188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6			188.2 x 329.3 x 280.8	188.2 x 329.3 x 280.8	188.2 x 329.3 x 280.8
Net Weight (kg)	-	6.553			7.06	7.3	7.3
Operating Temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)			0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	250W, 100-240V			350W, 100-240V	350W, 100-240V	250W, 100-240V
Power Consumption (w): Operating Mode, Typical	78.574	79.363			81.865	98.959	96.247
Fan	System fan: 1 x 120mm, 12VDC CPU fan: 1 x 60mm, 12VDC	System fan: 2 x 92mm, 12VDC CPU fan: 1 x 60mm, 12VDC			System fan: 2 x 120mm, 12VDC CPU fan: 1 x 60mm, 12VDC	System fan: 2 x 120mm, 12VDC CPU fan: 1 x 60mm, 12VDC	System fan: 2 x 120mm, 12VDC CPU fan: 1 x 60mm, 12VDC
Kensington Security Slot	Yes	Yes			Yes	Yes	Yes

	TS-253E	TS-453E		TS-364	HS-264
					
Model	TS-253E-8G	TS-453E-8G		TS-364-8G	HS-264-8G
Operating System	QTS	QTS		QTS	QTS
CPU	Intel® Celeron® J6412 4-core/ 4-thread processor, burst up to 2.6 GHz	Intel® Celeron® J6412 4-core/ 4-thread processor, burst up to 2.6 GHz		Intel® Celeron® N5095 4-core/ 4-thread processor, burst up to 2.9 GHz	Intel Celeron N5105 4 core 2.0GHz, burst up to 2.9GHz
CPU Architecture	64-bit x86	64-bit x86		64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics	Intel® UHD Graphics		Intel® UHD Graphics	Intel® UHD Graphics
Floating Point Unit	Yes	Yes		Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	Yes	Yes		Yes	Yes
System Memory	8 GB on board (non-expandable)	8 GB on board (non-expandable)		8 GB on board (non-expandable)	8 GB DDR4, not expandable
Maximum Memory	8GB	8GB		8 GB	8 GB DDR4, not expandable
Memory Slot	-	-		-	-
Drive Bay	2 x 3.5-inch SATA 6Gb/s	4 x 3.5-inch SATA 6Gb/s		3 x 3.5-inch SATA 6Gb/s, 3Gb/s	2 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		Yes	Yes
M.2 slot	2 x M.2 2280 PCIe Gen 3 x2	2 x M.2 2280 PCIe Gen 3 x2		2 x M.2 2280 PCIe Gen 3 x2 slots	-
SSD Cache Acceleration Support	Yes	Yes		Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-		-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (2.5G/1G/100M)	2 (2.5G/1G/100M/10M)		1	2 (also support 10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-		Optional via a PCIe adapter	-
10 Gigabit Ethernet Port	-	-		-	-
25 Gigabit Ethernet Port	-	-		-	-
Thunderbolt Port	-	-		-	-
PCIe Slot	-	-		-	-
USB 2.0 port	2	2		-	-
USB 3.2 Gen 1 port	-	-		1	2 x Type A
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-A	2 x Type-A		2 x Type-A	2 x Type A
HDMI Output	2 x HDMI 1.4b ( up to 3840 x 2160 @ 30Hz )	2 x HDMI 1.4b ( up to 3840 x 2160 @ 30Hz )		1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)	2 x HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz)
Form Factor	Tower	Tower		Tower	Tower
Dimensions (HxWxD mm)	168.5 x 102 x 225	177 x 180 x 235		142 x 150 x 260	41.3 x 302 x 220
Net Weight (kg)	1.28	3		1.64	1.56
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	60W/65W adapter, 100-240V	90W adapter, 100-240V		65W adapter, 100 - 240V	60W adapter, 100-240V
Power Consumption (w): Operating Mode, Typical	18.09	33.88		-	-
Fan	1 x 70mm, 12VDC	1 x 120mm, 12VDC		1 x 92mm, 12VDC	-
Kensington Security Slot	Yes	Yes		Yes	Yes





	TBS-464	TS-264		TS-464		TS-664	
							
Model	TBS-464-8G	TS-264-8G		TS-464-8G	TS-464-4G	TS-664-8G	TS-664-4G
Operating System	QTS	QTS		QTS		QTS	
CPU	Intel® Celeron® N5105 4-core/4-thread processor, burst up to 2.9GHz	Intel® Celeron® N5095 4-core/4-thread processor, burst up to 2.9 GHz		Intel® Celeron® N5095 4-core/4-thread processor, burst up to 2.9 GHz	Intel® Celeron® N5095 4-core/4-thread processor, burst up to 2.9 GHz	Intel® Celeron® N5095 4-core/4-thread processor, burst up to 2.9 GHz	Intel® Celeron® N5095 4-core/4-thread processor, burst up to 2.9 GHz
CPU Architecture	64-bit x86	64-bit x86		64-bit x86		64-bit x86	
Graphic Processors	Intel® UHD Graphics	Intel® UHD Graphics		Intel® UHD Graphics		Intel® UHD Graphics	
Floating Point Unit	Yes	Yes		Yes		Yes	
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)	
Hardware-accelerated Transcoding	Yes	Yes		Yes		Yes	
System Memory	8 GB DDR4, not expandable	8 GB on board (non-expandable)		8 GB on board (non-expandable)	4 GB SODIMM DDR4 (1 x 4 GB)	8 GB on board (non-expandable)	4 GB SODIMM DDR4 (1 x 4 GB)
Maximum Memory	8 GB DDR4, not expandable	8 GB		8GB	16 GB (2 x 8GB)	8GB	16 GB (2 x 8GB)
Memory Slot	-	-		-	2 x SODIMM DDR4	-	2 x SODIMM DDR4
Drive Bay	-	2 x 3.5-inch SATA 6Gb/s		4 x 3.5-inch SATA 6Gb/s		6 x 3.5-inch SATA 6Gb/s	
Hot-swappable	-	Yes		Yes		Yes	
M.2 slot	4 x M.2 2280 NVMe Gen3 x2 slots	2 x M.2 2280 PCIe Gen 3 x1		2 x M.2 2280 PCIe Gen 3 x1		2 x M.2 2280 PCIe Gen 3 x1	
SSD Cache Acceleration Support	Yes	Yes		Yes		Yes	
Gigabit Ethernet Port (RJ45)	-	-		-		-	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (also support 10M)	2 (2.5G/1G/100M/10M)		2 (2.5G/1G/100M/10M)		2 (2.5G/1G/100M/10M)	
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	
10 Gigabit Ethernet Port	-	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	
25 Gigabit Ethernet Port	-	-		-		-	
Thunderbolt Port	-	-		-		-	
PCIe Slot	-	1 Slot 1: PCIe Gen 3 x2		1 Slot 1: PCIe Gen 3 x2		1 Slot 1: PCIe Gen 3 x2	
USB 2.0 port	3	2		2		2	
USB 3.2 Gen 1 port	2	-		-		-	
USB 3.2 Gen 2 (10Gbps) Port	-	2 x Type-A		2 x Type-A		2 x Type-A	
HDMI Output	2, HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz)	1, HDMI 2.0		1, HDMI 2.0	1, HDMI 2.1	1, HDMI 2.0	1, HDMI 2.1
Form Factor	Set-top design	Tower		Tower		Tower	
Dimensions (HxWxD mm)	30 x 230 x 165	168 x 105 x 226		168 x 170 x 226		168 x 235 x 226	
Net Weight (kg)	0.8	1.55		2.26		2.9	
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)		0 ~ 40°C (32°F ~ 104°F)	
Power Supply Unit	External Power Adapter, 65W, 100-240V	65W adapter, 100-240V		90W adapter, 100-240V		120W adapter, 100-240V	
Power Consumption (w): Operating Mode, Typical	16.52	12.448		-	40.536	35.437	44.02
Fan	1 x system fan	1 x 70mm, 12VDC		1 x 120mm, 12VDC		2 x 90mm, 12VDC	
Kensington Security Slot	Yes	Yes		Yes		Yes	



	TS-262	TS-462			TS-873A	TS-673A	TS-473A
							
Model	TS-262-4G	TS-462-2G	TS-462-4G		TS-873A-8G	TS-673A-8G	TS-473A-8G
Operating System	QTS	QTS	QTS		QTS / QuTS hero	QTS / QuTS hero	QTS / QuTS hero
CPU	Intel® Celeron® N4505 2-core/ 2-thread processor, burst up to 2.9 GHz	Intel® Celeron® N4505 2-core/ 2-thread processor, burst up to 2.9 GHz	Intel® Celeron® N4505 2-core/ 2-thread processor, burst up to 2.9 GHz		AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	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	64-bit x86		64-bit x86	64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics	Intel® UHD Graphics	Intel® UHD Graphics		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
Floating Point Unit	Yes	Yes	Yes		Yes	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	Yes	Yes	Yes		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
System Memory	4 GB on board (non-expandable)	2 GB RAM	4 GB on board (non-expandable)		8 GB SO-DIMM DDR4 (1 x 8 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)
Maximum Memory	4 GB	16 GB (2 x 8GB)	4 GB		64GB (2 x 32 GB)	64GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	-	2 x SODIMM DDR4	-		2 x SO-DIMM DDR4 Support ECC memory	2 x SO-DIMM DDR4 Support ECC memory	2 x SO-DIMM DDR4 Support ECC memory
Drive Bay	2 x 3.5-inch SATA 6Gb/s	4 x 3.5-inch SATA 6Gb/s	4 x 3.5-inch SATA 6Gb/s		8 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes	Yes		Yes	Yes	Yes
M.2 Slot	2 x M.2 2280 PCIe Gen 3 x1	2 x M.2 2280 PCIe Gen 3 x1	2 x M.2 2280 PCIe Gen 3 x1		2 x M.2 2280 PCIe Gen3 x1 slots	2 x M.2 2280 PCIe Gen3 x1 slots	2 x M.2 2280 PCIe Gen3 x1 slots
SSD Cache Acceleration Support	Yes	Yes	Yes		Yes	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-	-		-	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	1 (2.5G/1G/100M/10M)	1 (2.5G/1G/100M/10M)	1 (2.5G/1G/100M/10M)		2	2	2
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
25 Gigabit Ethernet Port	-	-	-		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
Thunderbolt Port	-	-	-		-	-	-
PCIe Slot	1 Slot 1: PCIe Gen 3 x2	1 Slot 1: PCIe Gen 3 x2	1 Slot 1: PCIe Gen 3 x2		2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4
USB 2.0 port	2	2	2		-	-	-
USB 3.2 Gen 1 port	-	-	-		-	-	-
USB 3.2 Gen 2 (10Gbps) port	2 x Type-A	2 x Type-A	2 x Type-A		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	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	1, HDMI 2.0	1, HDMI 2.0	1, HDMI 2.0		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
Form Factor	Tower	Tower	Tower		Tower	Tower	Tower
Dimensions (HxWxD mm)	168 x 105 x 226	168 x 170 x 226	168 x 170 x 226		188.2 x 329.3 x 280.8	188.2 x 264.3 x 280.8	188.2 x 199.3 x 280.8
Net Weight (kg)	1.55	2.26	2.26		6.76	5.78	5.03
Operating Temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	65W adapter, 100-240V	90W adapter, 100-240V	90W adapter, 100-240V		250W, 100-240V AC, 50-60Hz, 3.5A	250W, 100-240V AC, 50-60Hz, 3.5A	250W, 100-240V AC, 50-60Hz, 3.5A
Power Consumption (w): Operating Mode, Typical	12.448	25.98	25.98		54.067	45.898	29.792
Fan	1 x 70mm, 12VDC	1 x 120mm, 12VDC	1 x 120mm, 12VDC		System fan: 2 x 120mm	System fan: 2 x 92mm	System fan: 1 x 120mm CPU fan: 1 x 60mm
Kensington Security Slot	Yes	Yes	Yes		Yes	Yes	-

	TVS-675	TS-431P3		TS-431P3	TS-231P3	
						
Model	TVS-675-8G	TS-431P3-4G		TS-431P3-2G	TS-231P3-4G	TS-231P3-2G
Operating System	QTS / QuTS hero	QTS		QTS	QTS	QTS
CPU	ZhaoXin KX-U6580 8-core 2.5GHz processor	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz		AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz		AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz
CPU Architecture	64-bit x86	32-bit ARM		32-bit ARM	32-bit ARM	
Graphic Processors	ZhaoXin C-960 Graphics	-		-	-	
Floating Point Unit	Yes	Yes		Yes	Yes	
Encryption Engine	Yes (AES-NI)	Yes		Yes	Yes	
Hardware-accelerated Transcoding	Yes	-		-	-	
System Memory	8 GB SODIMM DDR4 (1 x 8 GB)	4GB SO-DIMM DDR3		2GB SO-DIMM DDR3	4GB SO-DIMM DDR3	2GB SO-DIMM DDR3
Maximum Memory	64 GB (2 x 32 GB)	8GB DDR3		8GB DDR3	8GB DDR3	
Memory Slot	2 x SO-DIMM DDR4	1 x SO-DIMM DDR3		1 x SO-DIMM DDR3	1 x SO-DIMM DDR3	
Drive Bay	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	4x 3.5-inch SATA 6Gb/s, 3Gb/s		4x 3.5-inch SATA 6Gb/s, 3Gb/s	2 x 3.5-inch SATA 6Gb/s, 3Gb/s	
Hot-swappable	Yes	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.		Yes	Yes	
M.2 slot	2 x M.2 2280 PCIe Gen 3 x1 or SATA 6Gb/s slots	-		-	-	
SSD Cache Acceleration Support	Yes	Yes		Yes	Yes	
Gigabit Ethernet Port (RJ45)	-	1		1	1	
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2	1		1	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	Optional via a PCIe adapter	-		-	-	
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	2	3		3	3	
USB 3.2 Gen 2 (10Gbps) Port	2 x Type-A	-		-	-	
HDMI Output	1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	-		-	-	
Form Factor	Tower	Tower		Tower	Tower	
Dimensions (HxWxD mm)	188.2 x 263.9 x 280.8	169 x 160 x 219		169 x 160 x 219	169 x 102 x 219	
Net Weight (kg)	6.2	2.01		2.01	1.46	
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		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		90W Adapter, 100-240V	60W/65W Adapter, 100-240V	
Power Consumption (w): Operating Mode, Typical	~60.794	26.7		26.7	15.6	
Fan	3 x 80mm, 12VDC	1 x 120mm, 12VDC		1 x 120mm, 12VDC	1 x70mm, 12VDC	
Kensington Security Slot	Yes	Yes		Yes	Yes	

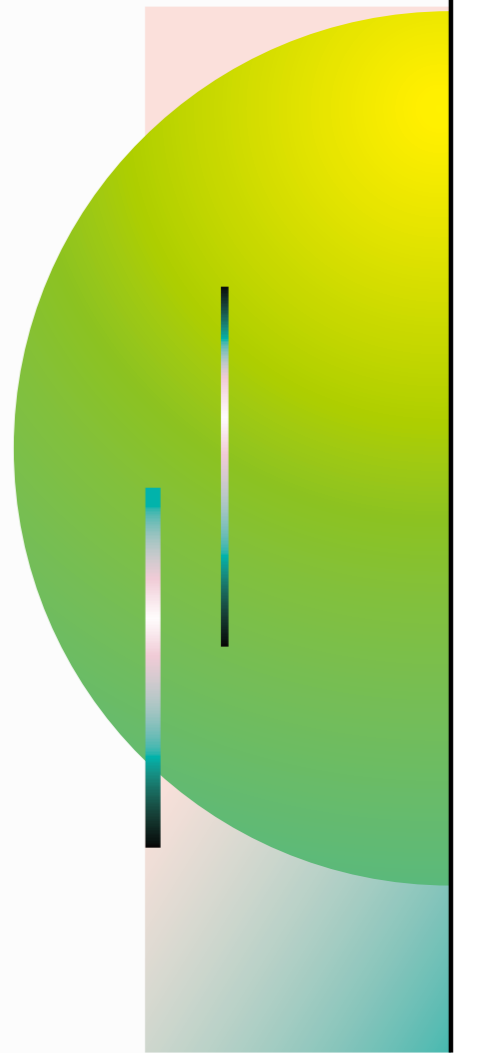
	TS-1655	TS-AI642		TS-h686	TS-h886	
						
Model	TS-1655-8G	TS-AI642-8G		TS-h686-D1602-8G	TS-h886-D1622-16G	TS-h886-D1602-8G
Operating System	QTS	QTS		QTS / QuTS hero	QuTS hero / QTS	QuTS hero / QTS
CPU	Intel® Atom® C5125 8-core processor, 2.8 GHz	8-core ARM Cortex 64-bit Processor ( 4-core Cortex-A76 2.2 GHz + 4-core Cortex-A55 1.8 GHz )		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	Intel® Xeon® D-1602 2-core/ 4-thread processor, up to 3.2 GHz
CPU Architecture	64-bit x86	64-bit ARM		64-bit x86	64-bit x86	64-bit x86
Graphic Processors	-	ARM Mali-G610 MC4		-	-	-
Floating Point Unit	Yes	Yes		Yes	Yes	Yes
Encryption Engine	Yes	Yes		Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	-	Yes		Yes	Optional via a PCIe adapter	Optional via a PCIe adapter
System Memory	8 GB UDIMM DDR4 (1 x 8 GB)	8 GB on board (non-expandable)		8 GB UDIMM DDR4 ECC (2 x 4 GB)	16 GB UDIMM DDR4 ECC (2 x 8 GB)	8 GB UDIMM DDR4 ECC (2 x 4 GB)
Maximum Memory	128 GB (4 x 32 GB)	8 GB		128 GB (4 x 32 GB)	128 GB (4 x 32 GB)	128 GB (4 x 32 GB)
Memory Slot	4 x U-DIMM DDR4	-		4 x Long-DIMM DDR4	4 x UDIMM DDR4	4 x UDIMM DDR4
Drive Bay	12 x 3.5-inch + 4 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	6 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		Yes	Yes	Yes
M.2 Slot	2 x M.2 2280 PCIe Gen3 x2 slots	-		2 x M.2 22110/2280 NVMe PCIe Gen3 x4 slots	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	Yes	Yes
GPU pass-through	-	-		-	Yes	Yes
SR-IOV	Yes	-		-	Yes	Yes
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (2.5G/1G/100M/10M)	1 (2.5G/1G/100M/10M)		4 (also support 10M)	4 (2.5G/1G/100M/10M)	4 (2.5G/1G/100M/10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
25 Gigabit Ethernet Port	Optional via a PCIe adapter	-		Optional via a PCIe adapter	Optional via a PCIe adapter	Optional via a PCIe adapter
PCIe Slot	3 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4 Slot 3: PCIe Gen 3 x4	1 Slot 1: PCIe Gen 3 x2		2 Slot 1: PCIe Gen3 x8 Slot 2: PCIe Gen3 x8	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	-	2		-	-	-
USB 3.2 Gen 1 port	4	-		3	3	3
USB 3.2 Gen 2 (10Gbps) Port	-	-		-	-	-
HDMI Output	-	1, HDMI 1.4b		-	-	-
Form Factor	Tower	Tower		Tower	Tower	Tower
Host Interface	-	-		-	-	-
Dimensions (HxWxD mm)	303.84 x 369.89 x 319.8	168 x 235 x 226		231.9 x 224.9 x 319.8	231.9 x 292.9 x 319.8	231.9 x 292.9 x 319.8
Net Weight (kg)	13.16	2.9		7.27	8.5	8.5
Operating Temperature	0 - 40 °C (32°F - 104°F)	0 ~ 40°C (32°F ~ 104°F)		0 - 40°C (32°F - 104°F)	0 - 40°C (32°F - 104°F)	0 - 40°C (32°F - 104°F)
Power Supply Unit	550W, 100-240V 1 x 8-pin PCI-e cable + 1 x 8 (6+2)-pin PCI-e cable	120W adapter, 100-240V		250W PSU, 100~240V	250W PSU, 100~240V	250W PSU, 100~240V
Power Consumption (w): Operating Mode, Typical	104.65	-		61.115	75.79	75.79
Fan	System fan: 3 x 92mm, 12VDC CPU fan: 2 x 97mm, 12VDC	2 x 90mm, 12VDC		System fan: 1 x 97mm, 12VDC CPU fan: 1 x 90mm, 12VDC	System fan: 2 x 80mm, 12VDC CPU fan: 1 x 90mm, 12VDC	System fan: 2 x 80mm, 12VDC CPU fan: 1 x 90mm, 12VDC
Kensington Security Slot	Yes	Yes		Yes	Yes	Yes




	TS-464U		TS-464U-RP		TS-864eU	TS-1264U-RP
						
Model	TS-464U-8G	TS-464U-4G	TS-464U-RP-8G		TS-864eU-4G	TS-1264U-RP-4G
Operating System	QTS		QTS		QTS	QTS
CPU	Intel® Celeron® N5105/N5095 4-core/ 4-thread processor, burst up to 2.9 GHz		Intel® Celeron® N5105/N5095 4-core/ 4-thread processor, burst up to 2.9 GHz		Intel® Celeron® N5105/N5095 4-core/ 4-thread processor, burst up to 2.9 GHz	Intel® Celeron® N5105/N5095 4-core/ 4-thread processor, burst up to 2.9 GHz
CPU Architecture	64-bit x86		64-bit x86		64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics		Intel® UHD Graphics		Intel® UHD Graphics	Intel® UHD Graphics
Floating Point Unit	Yes		Yes		Yes	Yes
Encryption Engine	Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	Yes		Yes		Yes	Yes
System Memory	8 GB on board (non-expandable)	4 GB SODIMM DDR4 (1 x 4 GB)	8 GB on board (non-expandable)		4 GB SODIMM DDR4 (1 x 4 GB)	4 GB SODIMM DDR4 (1 x 4 GB)
Maximum Memory	8 GB	16 GB (2 x 8 GB)	8 GB		16 GB (2 x 8 GB)	16 GB (2 x 8 GB)
Memory Slot	-	2 x SODIMM DDR4	2 x SODIMM DDR4		-	-
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s		4 x 3.5-inch SATA 6Gb/s, 3Gb/s		8 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes		Yes		Yes	Yes
M.2 Slot	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
SSD Cache Acceleration Support	Yes		Yes		Yes	Yes
Gigabit Ethernet Port (RJ45)	-		-		-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (2.5G/1G/100M/10M)		2 (2.5G/1G/100M/10M)		2 (2.5G/1G/100M/10M)	2 (2.5G/1G/100M/10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
25 Gigabit Ethernet Port	Optional via a PCIe adapter		Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
Thunderbolt Port	-		-		-	-
PCIe Slot	1 Slot 1: PCIe Gen 3 x2		1 Slot 1: PCIe Gen 3 x2		1 Slot 1: PCIe Gen 3 x2	1 Slot 1: PCIe Gen 3 x2
USB 2.0 port	2		2		2	2
USB 3.2 Gen 1 port	-		-		-	-
USB 3.2 Gen 2 (10Gbps) port	2 x Type A USB3.2 Gen2		2 x Type A USB 3.2 Gen 2		2 x Type A USB 3.2 Gen 2	2 x Type A USB3.2 Gen2
HDMI Output	1, HDMI 1.4b		1, HDMI 1.4b		1, HDMI 1.4b	1, HDMI 1.4b
Form Factor	1U Rackmount		1U Rackmount		2U Rackmount	2U Rackmount
Dimensions (HxWxD mm)	43.3 x 482.6 x 483.9		43.3 x 430 x 479		88.6 x 482.14 x 318.13	88.7 x 482.2 x 423.8
Net Weight (kg)	6.6		8.12		6.68	9.43
Operating Temperature	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W (x1), 100-240V		250W (x2), 100-240V		300W, 100-240V	300W (x2), 100-240V
Power Consumption (w): Operating Mode, Typical	36.81		51.404		51.022	70.913
Fan	2 x 40mm, 12VDC		2 x 40mm, 12VDC		3 x 60mm, 12VDC	2 x 80mm, 12VDC
Kensington Security Slot	-		-		-	-

	TS-1273AU-RP	TS-1673AU-RP		TS-873AeU	TS-873AeU-RP
					
Model	TS-1273AU-RP-8G	TS-1673AU-RP-16G		TS-873AeU-4G	TS-873AeU-RP-4G
Operating System	QTS / QuTS hero	QTS / QuTS hero		QTS / QuTS hero	QTS / QuTS hero
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		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		64-bit x86	64-bit x86
Graphic Processors	-	-		-	-
Floating Point Unit	Yes	Yes		Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	Optional via a PCIe graphics card	Optional via a PCIe graphics card		Optional via a PCIe graphics card	Optional via a PCIe graphics card
System Memory	8 GB UDIMM DDR4 (1 x 8 GB)	16 GB UDIMM DDR4 (1 x 16 GB)		4 GB SODIMM DDR4 (1 x 4 GB)	4 GB SODIMM DDR4 (1 x 4 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)		64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x Long-DIMM DDR4 Support ECC memory	2 x Long-DIMM DDR4 Support ECC memory		2 x SODIMM DDR4 Support ECC memory	2 x SODIMM DDR4 Support ECC memory
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	16 x 3.5-inch SATA 6Gb/s, 3Gb/s		8 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		Yes	Yes
M.2 slot	Optional via a QNAP QM2 PCIe card	Optional via a QNAP QM2 PCIe card		2 x M2 2280 (PCIe Gen3 x 1)	2 x M2 2280 (PCIe Gen3 x 1)
SSD Cache Acceleration Support	Yes	Yes		Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-		-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-		2 (2.5G/1G/100M/10M)	2 (2.5G/1G/100M/10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
25 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
Thunderbolt Port	-	-		-	-
PCIe Slot	2 x PCIe Gen3 x4	2 x PCIe Gen3 x4		1 x PCIe Gen3 x8	1 x PCIe Gen3 x8
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		4 (2 x Type A, 2 x Type C)	4 (2 x Type A, 2 x Type C)
HDMI Output	Optional via a PCIe graphics card	Optional via a PCIe graphics card		Optional via a PCIe graphics card	Optional via a PCIe graphics card
Form Factor	2U Rackmount	3U Rackmount		2U Rackmount	2U Rackmount
Dimensions (HxWxD mm)	89 x 482 x 425	132 x 482 x 425		89 x 482 x 297.4	89 x 482 x 297.4
Net Weight (kg)	9.69	12		7.61	8.15
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	300W (x2) PSU, 100 - 240V	550W (x2), 100-240V AC, 50-60Hz, 7-3.5A		250W PSU, 100 - 240V	300W PSU(x2), 100 - 240V
Power Consumption (w): Operating Mode, Typical	78.92	97.34		52.49	58.14
Fan	2 x 80mm, 12VDC	3 x 80mm, 12VDC		3 x 60mm, 12VDC	3 x 60mm, 12VDC
Kensington Security Slot	-	-		-	-

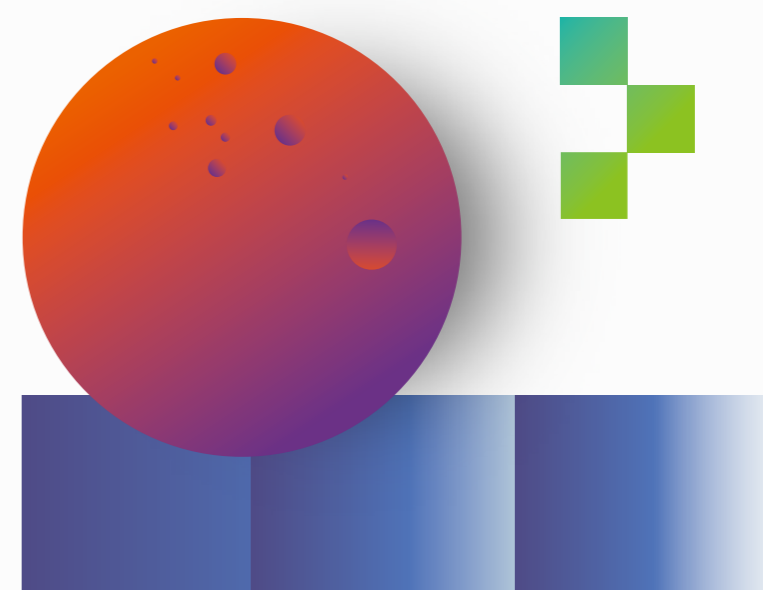
	TS-855eU	TS-855eU-RP		TS-410E
				
Model	TS-855eU-8G	TS-855eU-RP-8G		TS-410E-8G
Operating System	QTS	QTS		QTS
CPU	Intel® Atom® C5125 8-core processor, up to 2.8GHz	Intel® Atom® C5125 8-core processor, up to 2.8GHz		Intel® Celeron® J6412 4-core/ 4-thread processor, burst up to 2.6 GHz
CPU Architecture	64-bit x86	64-bit x86		64-bit x86
Graphic Processors	-	-		Intel® UHD Graphics for 10th Gen Intel® Processors
Floating Point Unit	Yes	Yes		Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)
Hardware-accelerated Transcoding	Optional via a PCIe graphics card	Optional via a PCIe graphics card		Yes
System Memory	8 GB SODIMM DDR4 (1 x 8 GB)	8 GB SODIMM DDR4 (1 x 8 GB)		8 GB on board (non-expandable)
Maximum Memory	64 GB ( 2 x 32 GB)	64 GB ( 2 x 32 GB)		8 GB on board (non-expandable)
Memory Slot	2 x SODIMM DDR4	2 x SODIMM DDR4		-
Drive Bay	8 x 3.5-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
Hot-swappable	Yes	Yes		Yes
M.2 Slot	2 x M.2 2280 (PCIe Gen3 x 2)	2 x M.2 2280 (PCIe Gen3 x 2)		-
SSD Cache Acceleration Support	Yes	Yes		Yes
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (2.5G/1G/100M/10M)	2 (2.5G/1G/100M/10M)		2 (2.5G/1G/100M/10M)
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	Optional via a PCIe adapter	Optional via a PCIe adapter		-
PCIe Slot	2 x PCIe Gen3 (x4) Slot 1: PCIe Gen 3 (x4) Slot 2: PCIe Gen 3 (x4)	2 x PCIe Gen3 (x4) Slot 1: PCIe Gen 3 (x4) Slot 2: PCIe Gen 3 (x4)		-
USB 2.0 port	-	-		-
USB 3.2 Gen 1 port	4	4		-
USB 3.2 Gen 2 (10Gbps) Port	-	-		4
HDMI Output	Optional via a PCIe graphics card	Optional via a PCIe graphics card		1, HDMI 1.4b (up to 3840 x 2160 @ 30Hz)
Form Factor	2U Rackmount	2U Rackmount		Tower
Host Interface	-	-		-
Dimensions (HxWxD mm)	89 x 482 x 297.4	89 x 482 x 297.4		60 x 180 x 254
Net Weight (kg)	7.61	8.15		2.64
Operating Temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W PSU, 100 - 240V	2 x 300W PSU, 100 - 240V		External Power Adapter, 90W and above, AC 100-240V
Power Consumption (w): Operating Mode, Typical	79.113 Tested fully populated with WD10EFRX hard drives.	78.73 Tested fully populated with WD10EFRX hard drives.		-
Fan	3 x 60mm, 12VDC	3 x 60mm, 12VDC		-
Kensington Security Slot	-	-		Yes



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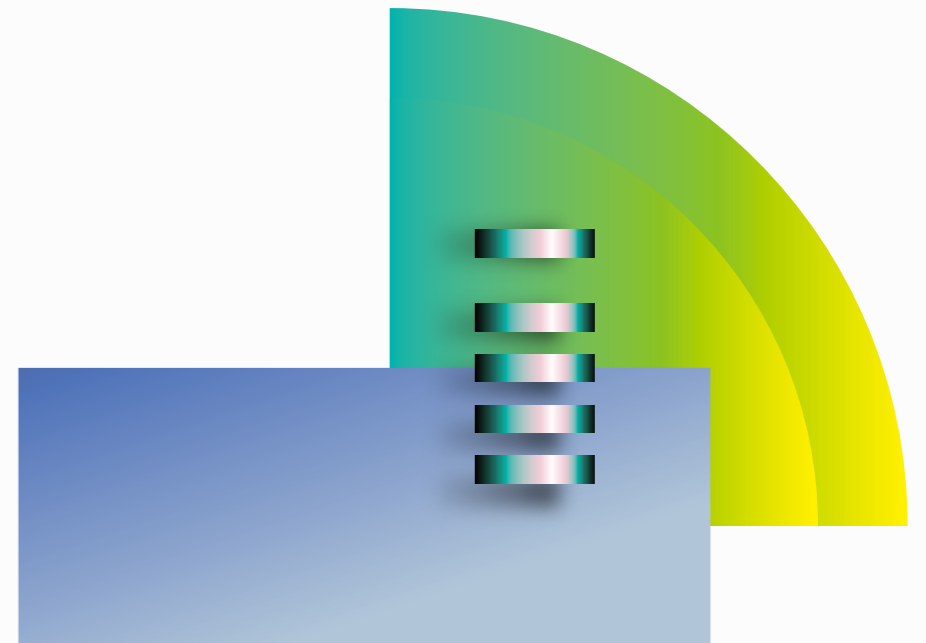
	TVS-472XT	TVS-672XT		TVS-872XT
				
Model	TVS-472XT-i3-4G	TVS-672XT-i3-8G		TVS-872XT-i5-16G
Operating System	QTS / QuTS hero	QTS / QuTS hero		QTS / QuTS hero
CPU	Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor	Intel® Core™ i3-8100T 4-core/4-thread 3.1 GHz Processor		Intel® Core™ i5-8400T 6-core/6-thread Processor, burst up to 3.3 GHz
CPU Architecture	64-bit x86	64-bit x86		64-bit x86
Graphic Processors	Intel® UHD Graphics 630	Intel® UHD Graphics 630		Intel® UHD Graphics 630
Floating Point Unit	Yes	Yes		Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)		Yes (AES-NI)
Hardware-accelerated Transcoding	Yes	Yes		Yes
System Memory	4 GB SODIMM DDR4 (1 x 4 GB)	8 GB SODIMM DDR4 (2 x 4 GB)		16 GB SODIMM DDR4 (2 x 8 GB)
Maximum Memory	64 GB ( 2 x 32 GB)	64 GB ( 2 x 32 GB)		64 GB ( 2 x 32 GB)
Memory Slot	2 x SO-DIMM DDR4	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		8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		Yes
M.2 Slot	2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 PCIe Gen3 x2 slots		2 x M.2 2280 PCIe Gen3 x2 slots
SSD Cache Acceleration Support	Yes	Yes		Yes
Gigabit Ethernet Port (RJ45)	2	2		2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter
10 Gigabit Ethernet Port	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)	1 x 10GBASE-T (10G/5G/2.5G/1G/100M)		1 x 10GBASE-T (10G/5G/2.5G/1G/100M)
25 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter
Thunderbolt Port	2 (Thunderbolt™ 3)	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		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		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		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)		1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	Tower	Tower		Tower
Dimensions (HxWxD mm)	188.2 x 199.3 x 279.6	188.2 x 264.3 x 279.6		188.2 x 329.3 x 279.6
Net Weight (kg)	5.4	6.553		7.06
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	250W, 100-240V		250W, 100-240V
Power Consumption (w): Operating Mode, Typical	37.32	45.6		65.03
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		System fan: 2 x 120mm, 12VDC CPU fan: 2 x 60mm blower fan
Kensington Security Slot	Yes	Yes		Yes

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	HS-453DX	TS-431K		TS-133	TS-233	TS-433
						
Model	HS-453DX-8G	TS-431K		TS-133	TS-233	TS-433-4G
Operating System	QTS	QTS		QTS	QTS	QTS
CPU	Intel® Celeron® J4115 4-core/4-thread processor, burst up to 2.5 GHz	AnnapurnaLabs, an Amazon company Alpine AL214, 4-core, 1.7GHz		ARM 4-core Cortex-A55 1.8GHz processor	ARM 4-core Cortex-A55 2.0GHz processor	ARM 4-core Cortex-A55 2.0GHz processor
CPU Architecture	64-bit x86	32-bit ARM		64-bit ARM	64-bit ARM	64-bit ARM
Graphic Processors	Intel® HD Graphics 600	-		-	-	-
Floating Point Unit	Yes	Yes		Yes	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes		Yes	Yes	Yes
Hardware-accelerated Transcoding	Yes	-		-	-	-
System Memory	8 GB SO-DIMM DDR4 (2 x 4 GB)	1GB DDR3		2 GB on board (non-expandable)	2 GB on board (non-expandable)	4 GB on board (non-expandable)
Maximum Memory	8 GB (2 x 4 GB)	1GB DDR3		2 GB on board (non-expandable)	2 GB on board (non-expandable)	4 GB on board (non-expandable)
Memory Slot	2 x SO-DIMM DDR4	-		-	-	-
Drive Bay	2 x 3.5-inch SATA 6Gb/s, 3Gb/s	4x 3.5-inch SATA 6Gb/s, 3Gb/s		1 x 3.5-inch SATA 6Gb/s, 3Gb/s	2 x 3.5-inch SATA 6Gb/s, 3Gb/s	4x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		-	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		1	1	1
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-		-	-	1 (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)	-		-	-	-
25 Gigabit Ethernet Port	-	-		-	-	-
Thunderbolt Port	-	-		-	-	-
PCIe Slot	-	-		-	-	-
USB 2.0 port	2	-		1	2	2
USB 3.2 Gen 1 port	3 (1 x USB-C, 2 x USB-A)	2		1	1	1
USB 3.2 Gen 2 (10Gbps) Port	-	-		-	-	-
HDMI Output	2, HDMI 2.0 (up to resolution 3840 x 2160 @ 60Hz) + HDMI 1.4b (up to 3840 x 2160 @ 30Hz)	-		-	-	-
Form Factor	Set-top design	Tower		Tower	Tower	Tower
Dimensions (HxWxD mm)	43.8 x 404 x 220	169 x 160 x 219		187.5 x 66.1 x 157.6	188.64 x 90.18 x 156.26	169 x 160 x 219
Net Weight (kg)	2.4	2.01		0.61	1.11	2.07
Operating temperature	0 - 35 °C (32°F - 95°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	External Power Adapter, 90W, 100-240V	90W Adapter, 100-240V		36W Adapter, 100-240V	65W adapter (12VDC), 100-240VAC	90W adapter (12VDC), 100-240VAC
Power Consumption (w): Operating Mode, Typical	22.38	26.57		7.32	10.81	22.54
Fan	-	1 x 120mm, 12VDC		1 x 50mm, 12VDC	1 x 80mm, 12VDC	1 x 120mm, 12VDC
Kensington Security Slot	-	Yes		-	-	Yes



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	TL-D800C	TL-R1200C-RP		TL-D400S	TL-D800S
					
Model	TL-D800C	TL-R1200C-RP		TL-D400S	TL-D800S
Supported O.S.	QNAP QTS / QuTS hero, Windows, Mac, Linux	QNAP QTS / QuTS hero, Windows, Mac, Linux		QNAP QTS / QuTS hero, Windows, Mac, Linux	QNAP QTS / QuTS hero, Windows, Mac, Linux
CPU	-	-		-	-
Drive Bay	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s		4 x 3.5-inch SATA 6Gb/s, 3Gb/s	8 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	-	-		-	-
Gigabit Ethernet Port (RJ45)	-	-		-	-
Audio Alert On/Off Switch	Yes	Yes		Yes	Yes
Form Factor	Tower	2U Rackmount		Tower	Tower
Host Interface	1 x USB 3.2 Gen 2 Type-C	1 x USB 3.2 Gen 2 Type-C		1 x SFF-8088	2 x SFF-8088
Dimensions (HxWxD mm)	188.2 x 329.3 x 281.4	88.6 x 482 x 562.5		168.5 x 160.2 x 219	188.2 x 329.3 x 279.6
Net Weight (kg)	6.18	11.03		3.66	6.17
Max. number of HDDs/SSDs supported	8	12		4	8
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		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)		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		65W adapter, 100 - 240V	250W PSU, 100 - 240V
Power Consumption (w): Operating Mode, Typical	48.4	82.26		22.985	51.606
Fan Mode Switch	Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)		Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)
Fan	2 x 120mm, 12VDC	2 x 70mm, 12VDC		1 x 120mm, 12VDC	2 x 120mm, 12VDC
Kensington Security Slot	Yes	-		Yes	Yes
Management	-	-		-	-





	TL-D1600S	TL-R400S		TL-R1200S-RP	TL-R1220Sep-RP
					
Model	TL-D1600S	TL-R400S		TL-R1200S-RP	TL-R1220Sep-RP
Supported O.S.	QNAP QTS / QuTS hero, Windows, Mac, Linux	QNAP QTS / QuTS hero, Windows, Mac, Linux		QNAP QTS / QuTS hero, Windows, Mac, Linux	QNAP QTS / QuTS hero, Windows, Mac, Linux
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		12 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s
Hot-swappable	-	-		-	Yes
Gigabit Ethernet Port (RJ45)	-	-		-	-
Audio Alert On/Off Switch	Yes	Yes		Yes	-
Form Factor	Tower	1U Rackmount		2U Rackmount	2U Rackmount
Host Interface	4 x SFF-8088	1 x SFF-8088		3 x SFF-8088	4 x 12Gb/s SAS 3.0 wide ports (4-wide port) Mini-SAS HD (SFF-8644)
Dimensions (HxWxD mm)	303.84 x 369.89 x 319.8	43.9 x 438.9 x 291.1		88.6 x 482 x 562.5	88.65 x 482.2 x 423.8
Net Weight (kg)	11.59	3.98		9.49	9.19
Max. number of HDDs/SSDs supported	16	4		12	12
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		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
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		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		250W(x2) PSU, 100 - 240V	300W (x2), 100 - 240V
Power Consumption (w): Operating Mode, Typical	93.66	25.07		73.7	163.38
Fan Mode Switch	Yes (Auto, high, medium, low)	Yes (Auto, high, medium, low)		Yes (Auto, high, medium, low)	-
Fan	3 x 92mm, 12VDC	2 x 40mm, 12VDC		2 x 70mm, 12VDC	2 x 80mm, 12VDC
Kensington Security Slot	Yes	Yes		Yes	-
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





	TL-R1620Sep-RP	TL-R1620Sdc		TR-002	TR-004	TR-004U
						
Model	TL-R1620Sep-RP	TL-R1620Sdc		TR-002	TR-004	TR-004U
Supported O.S.	QNAP QTS / QuTS hero, Windows, Mac, Linux	QNAP QTS / QuTS hero, Windows, Mac, Linux		QNAP QTS / QuTS hero, Windows, Mac, Linux	QNAP QTS / QuTS hero, Windows, Mac, Linux	
CPU	-	-		Micro processor with hardware RAID	Micro processor with hardware RAID	Micro processor with hardware RAID
Drive Bay	16 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s	16 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s		2 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 3Gb/s	4 x 3.5-inch SATA 3Gb/s
Hot-swappable	Yes	Yes		Yes	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	1 For console access and CLI.		-	-	-
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	-	-		1 x Type-C USB 3.2 Gen 2 10Gbps	-	-
Audio Alert On/Off Switch	-	-		-	-	-
Form Factor	3U Rackmount	3U Rackmount		Tower	Tower	1U 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 mm)	131.3 x 482.2 x 425.3	131.3 x 482.2 x 425.3		168.5 x 102 x 219	168.5 x 160.2 x 219	44 x 439 x 291
Net Weight (kg)	11.48	12.26		1.37	1.85	4.03
Max. number of HDDs/SSDs supported	16	16		2	4	4
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		2 x 2.5-inch or 3.5-inch SATA 6Gb/s	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)		0 - 40 °C (32°F - 104°F)	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		External Power Adapter, 36W, 100-240V	External Power Adapter, 65W, 100-240V	Open-frame 100W, Input: 100V-240V ~ / 3.5A, 50Hz-60Hz
Power Consumption (w): Operating Mode, Typical	207.13	212.24		10.15	18.21	18.9
Fan Mode Switch	-	-		-	-	-
Fan	3 x 80mm, 12VDC	3 x 80mm, 12VDC		1 x 70mm, 12VDC	1 x 120mm, 12VDC	2 x 40mm, 12VDC
Kensington Security Slot	-	-		Yes	Yes	Yes
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		-	-	-



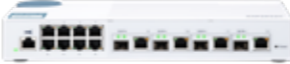
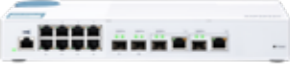
	TL-R1200PES-RP	TL-R1600PES-RP
		
Model	TL-R1200PES-RP	TL-R1600PES-RP
Supported O.S.	QNAP QTS / QuTS hero, Windows, Mac, Linux	QNAP QTS / QuTS hero, Windows, Mac, Linux
CPU	-	-
Drive Bay	12 x 3.5-inch SATA 6Gb/s	16 x 3.5-inch SATA 6Gb/s
Hot-swappable	Yes	Yes
USB 3.2 Gen 1 port	-	-
USB 3.2 Gen 2 (10Gbps) Port	-	-
Audio Alert On/Off Switch	-	-
Form Factor	2U Rackmount	3U Rackmount
Host Interface	Mini-SAS HD (SFF-8644) 1 x 2 (in, out)	Mini-SAS HD (SFF-8644) 1 x 2 (in, out)
Dimensions (HxWxD mm)	88.65x482.2x423.8	131.3x482.2x425.3
Net Weight (kg)	-	-
Max. number of HDDs/SSDs supported	12	16
Hard Drive Type	3.5" or 2.5" SATA 6Gb/s and 3Gb/s drives	3.5" or 2.5" SATA 6Gb/s and 3Gb/s drives
Operating Temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	300W (x2), 100 - 240V	550W(x2), 100-240V
Power Consumption (w): Operating Mode, Typical	-	-
Fan Mode Switch	-	-
Fan	2 x 80mm, 12VDC	3 x 80mm, 12VDC
Kensington Security Slot	-	-

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	QSW-M2106-4C	QSW-M2106-4S		QSW-M2106R-2S2T	QSW-M2106PR-2S2T
					
Model	QSW-M2106-4C	QSW-M2106-4S		QSW-M2106R-2S2T	QSW-M2106PR-2S2T
Management Type	Web Managed	Web Managed		Web Managed	Web Managed
Management Port					
Power Supply Description	Adapter	Adapter		Internal Power Supply Unit	Adapter
Max. Power Consumption (w)	36W	16W		40W	350W
Input Power Type	DC	DC		AC	AC
Input Voltage Range	12V/3A	12V/3A		100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	16K	16K		16K	16K
Total Non-Blocking Throughput	55Gbps	55Gbps		55Gbps	55Gbps
Switching Capacity	110Gbps	110Gbps		110Gbps	110Gbps
Management Interface	Web	Web		Web	Web
Console	RJ45	RJ45		RJ45	RJ45
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes		Yes	Yes
Fan	PWM double ball bearing fan x 1	PWM double ball bearing fan x 1		PWM VAPO Bearing fan x 2	PWM VAPO Bearing fan x 2
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 802.3z 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 802.3ae 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)
Number of Ports	10	10		10	10
10GbE SFP+	-	4		2	2
10GbE BASE-T (RJ45)	-	-		2	2
10GbE SFP+/RJ45 Combo Ports	4	-		-	-
2.5GbE (RJ45)	6	6		6	6
1GbE (RJ45)	-	-		-	-
Total PoE Ports	-	-		-	8
PoE PSE (802.3af, 15.4W)	-	-		-	port 1~8
PoE+ PSE (802.3at, 30W)	-	-		-	port 1~8
PoE++ PSE (802.3bt, 90W)	-	-		-	port 1~8
PoE Power Output	-	-		-	port 1~8 (90W)
Total PoE Power Budget	-	-		-	310W
Form Factor	Desktop	Desktop		Rackmount	Rackmount
Dimensions (HxWxD mm)	42.5 x 290 x 127	42.5 x 290 x 127		43.3 x 207 x 248.8	43.3 x 207 x 248.8


	QSW-M1208-8C	QSW-M1204-4C		QSW-M804-4C	QSW-1208-8C
					
Model	QSW-M1208-8C	QSW-M1204-4C		QSW-M804-4C	QSW-1208-8C
Management Type	Web Managed	Web Managed		Web Managed	Unmanaged
Management Port	1 x 1GbE RJ45	1 x 1GbE RJ45		1 x 1GbE RJ45	-
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit		Internal Power Supply Unit	Internal Open Frame
Max. Power Consumption (w)	70W	70W		70W	50W
Input Power Type	AC	AC		AC	AC
Input Voltage Range	100-240VAC, 50/60Hz	100-240VAC, 50/60Hz		100-240VAC, 50/60Hz	100-240VAC, 50/60 Hz
MAC Address Table	16K	16K		16K	27K
Total Non-Blocking Throughput	120Gbps	120Gbps		80Gbps	120Gbps
Switching Capacity	240Gbps	240Gbps		160Gbps	240Gbps
Management Interface	Web	Web		Web	-
Console	RS232	RS232		RS232	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes		Yes	Yes
Fan	System: 4 x 4 cm (12V)	System: 4 x 4 cm (12V)		System: 4 x 4 cm (12V)	System: 2 x 4 cm (12V DC)
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)		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
Number of Ports	12	12		8	12
10GbE SFP+	4	8		4	4 10G/1G
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).		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).
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	-	-		-	Desktop
Dimensions (HxWxD mm)	46.65 x 285 x 236.6	46.65 x 285 x 236.6		46.65 x 285 x 236.6	43 x 285 x 233
Net Weight (kg)	2.2	2.16		2.12	2.15

	QSW-2104-2T	QSW-2104-2S		QSW-M408-4C	QSW-M408-2C
					
Model	QSW-2104-2T	QSW-2104-2S		QSW-M408-4C	QSW-M408-2C
Management Type	Unmanaged	Unmanaged		Web Managed	Web Managed
Management Port	-	-		-	-
Power Supply Description	Adapter	Adapter		Adapter	Adapter
Max. Power Consumption (w)	12W	12W		31.46 W	22.04 W
Input Power Type	DC	DC		AC	AC
Input Voltage Range	12V/1A	12V/1A		100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	16K	16K		16K	16K
Total Non-Blocking Throughput	30Gbps	30Gbps		48Gbps	48Gbps
Switching Capacity	60Gbps	60Gbps		96Gbps	96Gbps
Management Interface	-	-		Web	Web
Console	-	-		RJ45	RJ45
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes		Yes	Yes
Fan	-	-		PWM double ball bearing fan x 1	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	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	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	6		12	12
10GbE SFP+	-	2		-	2 10G/1G
10GbE BASE-T (RJ45)	2	-		-	-
10GbE SFP+/RJ45 Combo Ports	-	-		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).
2.5GbE (RJ45)	4	4		-	-
1GbE (RJ45)	-	-		8	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		Desktop	Desktop
Dimensions (HxWxD mm)	34 x 180 x145	34 x 180 x145		42.5 x 290 x 127	42.5 x 290 x 127
Net Weight (kg)	0.722	0.713		1.15	1.15

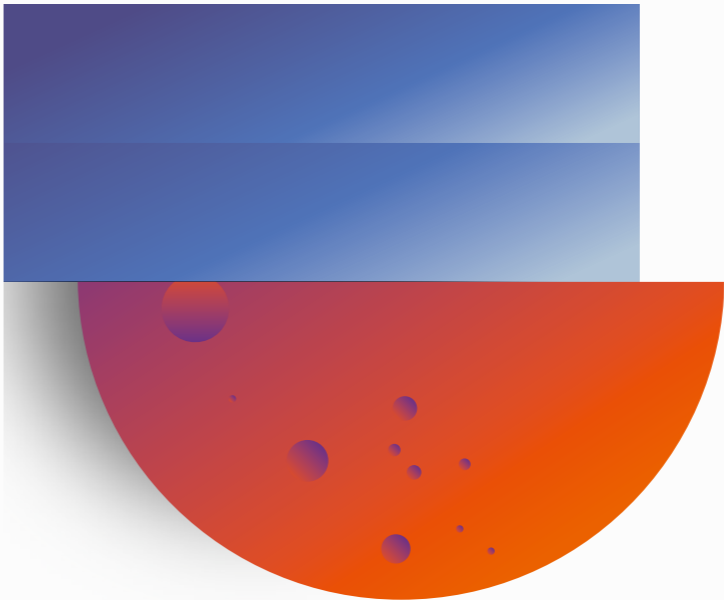
	QSW-M408S	QSW-M2108-2C		QSW-M2108-2S	QSW-M2108R-2C
					
Model	QSW-M408S	QSW-M2108-2C		QSW-M2108-2S	QSW-M2108R-2C
Management Type	Web Managed	Web Managed		Web Managed	Web Managed
Management Port	-	-		-	-
Power Supply Description	Adapter	Adapter		Adapter	Internal Power Supply Unit
Max. Power Consumption (w)	12.17 W	12.17 W		12.17 W	60W
Input Power Type	AC	DC		DC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	12V		12V	100-240VAC, 50/60 Hz
MAC Address Table	16K	16K		16K	16K
Total Non-Blocking Throughput	48Gbps	40Gbps		40Gbps	40Gbps
Switching Capacity	96Gbps	80Gbps		80Gbps	80Gbps
Management Interface	Web	Web		Web	Web
Console	RJ45	RJ45		RJ45	RJ45
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes		Yes	Yes
Fan	PWM double ball bearing fan x 1	PWM double ball bearing fan x 1		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)		IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBase-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		10	10
10GbE SFP+	4 10G/1G	-		2	-
10GbE BASE-T (RJ45)	-	-		-	-
10GbE SFP+/RJ45 Combo Ports	-	2		-	2
2.5GbE (RJ45)	-	8		8	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		Desktop	Desktop
Dimensions (HxWxD mm)	42.5 x 290 x 127	42.5 x 290 x 127		42.5 x 290 x 127	43.3 x 207 x 199.5
Net Weight (kg)	1.145	1.12		1.12	1.2


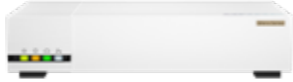

	QSW-308S	QSW-308-1C		QSW-IM1200-8C	QSW-M2116P-2T2S
					
Model	QSW-308S	QSW-308-1C		QSW-IM1200-8C	QSW-M2116P-2T2S
Management Type	Unmanaged	Unmanaged		Web Managed	Web Managed
Management Port	-	-		1 x 1GbE RJ45	-
Power Supply Description	Adapter	Adapter		Adapter	Internal Power Supply Unit
Max. Power Consumption (w)	36W	36W		67W	350W
Input Power Type	AC	AC		DC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz		9V-54V	100-240VAC, 50/60 Hz
MAC Address Table	16K	16K		16K	32K
Total Non-Blocking Throughput	38Gbps	38Gbps		120Gbps	80Gbps
Switching Capacity	76Gbps	76Gbps		240Gbps	160Gbps
Management Interface	-	-		Web	Web
Console	-	-		RS232	RJ45
Energy Efficient Ethernet (IEEE 802.3az complaint)	-	-		Yes	Yes
Fan	Fanless	Fanless		-	PWM double ball bearing fan x 2
Supported Standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3an 10GBASE-T	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3an 10GBASE-T IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet		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)
Number of Ports	11	11		12	20
10GbE SFP+	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.	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.		4	2
10GbE BASE-T (RJ45)	-	-		-	2
10GbE SFP+/RJ45 Combo Ports	-	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.		8	-
2.5GbE (RJ45)	-	-		-	16
1GbE (RJ45)	8	8		-	-
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	Desktop	Desktop		Rackmount	Rackmount
Dimensions (HxWxD mm)	42.5 x 290 x 127	42.5 x 290 x 127		43.5 x 285 x 238	43.5 x 285 x 234.8
Net Weight (kg)	0.74	0.77		4.58	2.08



	QSW-1105-5T
	
Model	QSW-1105-5T
Management Type	Unmanaged
Management Port	-
Power Supply Description	Adapter
Max. Power Consumption (w)	12 W
Input Power Type	DC
Input Voltage Range	12V
MAC Address Table	16K
Total Non-Blocking Throughput	12.5Gbps
Switching Capacity	25Gbps
Management Interface	-
Console	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	-
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
Number of Ports	5
10GbE SFP+	-
10GbE BASE-T (RJ45)	-
10GbE SFP+/RJ45 Combo Ports	-
2.5GbE (RJ45)	5
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
Dimensions (HxWxD mm)	34 x 180 x 145
Net Weight (kg)	0.577

	QSW-M5216-1T
	
Management Type	Web Managed
Management Port	1 x 1GbE RJ45
Power Supply Description	Internal Power Supply Unit
Max. Power Consumption (w)	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 mm)	43.5 x 285 x 237.7
Net Weight (kg)	2.15

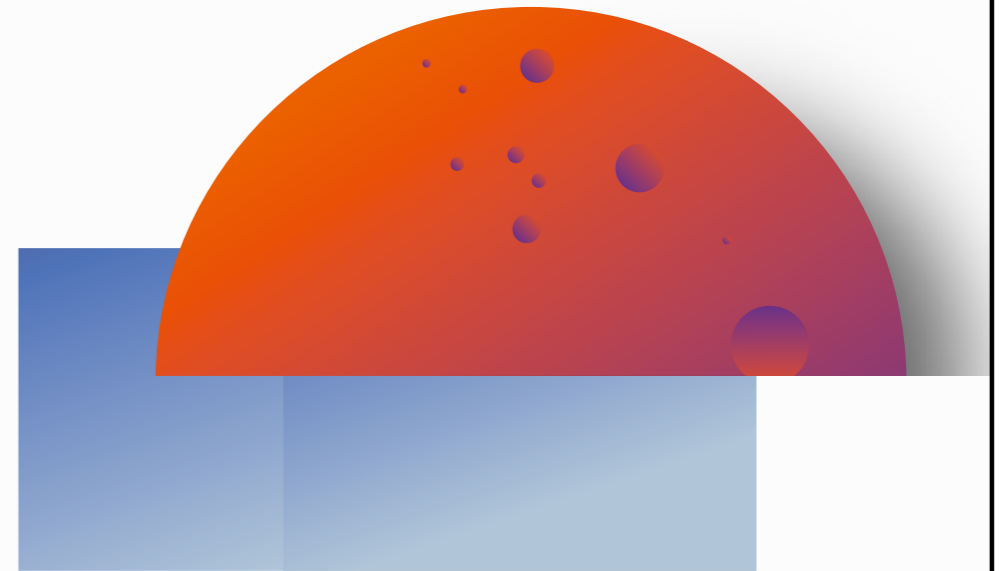
Secure remote multi-site VPN,  
providing a high-speed  
on-premises solution covering  
wired and wireless connections



	QHora-321	QHora-322	QHora-301W
			
Model	QHora-321	QHora-322	QHora-301W
Number of Ethernet Ports	6	9	6
10GbE BASE-T (RJ45)	-	3 x 10GBASE-T (10G/5G/2.5G/1G/100M)	2 x 10GBASE-T (10G/5G/2.5G/1G/100M)
2.5GbE (RJ45)	6	6	-
1GbE (RJ45)	-	-	4
CPU	Marvell CN9130 Quad Core Armv8 Cortex-A72	Marvell CN9130 Quad Core Armv8 Cortex-A72	Qualcomm IPQ8072A Hawkeye 2 Quad-core 2.2 GHz 64-bit CPU
Memory	4GB DDR4	4GB DDR4	1GB
Flash	4MB SPI NOR Flash 4GB eMMC	4MB SPI NOR Flash 4GB eMMC	4GB eMMC
Wireless Antenna	-	-	8 Internal Antennas
Wireless Antenna Type	-	-	8 Internal 5dBi Antennas
Antenna Gain 2.4 GHz	-	-	4.5dBi
Antenna Gain 5 GHz	-	-	5.2dBi
Transmission Power	-	-	24dBm
Wi-Fi 6 (802.11ax)	-	-	Yes
Wi-Fi 5 (802.11ac)	-	-	Yes
USB 3.2 Gen 1 port	-	1	2
USB 3.2 Gen 1 port_note	-	Only for connecting USB storage for FTP service on the router	Only for connecting USB storage for FTP service on the router
Button	Reset	Reset	Power, WPS, Reset
Power	12V DC	12V DC	12V DC
Power Consumption (w)	36W	36W	24W
Wireless Standard	-	-	802.11a/b/g/n/ac/ax
Wireless Speed Rating	-	-	AX3600
Wireless Speed 2.4 GHz	-	-	2.4G (1182Mbps): 4x4 (40MHz)
Wireless Speed 5 GHz	-	-	5G (2475Mbps): 4x4 (80MHz), 2x2 (160MHz)
Frequency Band 2.4 GHz	-	-	Yes , dual band
Frequency Band 5 GHZ	-	-	Yes , dual band
Wireless Bandwidth	-	-	20/40/80/160 MHz
Transmit Output Power	-	-	Depends on country code
Dimensions (HxWxD mm)	166.4 x 145.7 x 29.85	226 x 140 x 44.4	250×180×48
Weight	0.81Kg	1.08Kg	1.9kg
Packing weight	1.35Kg	1.61Kg	2.2kg
Operating Temperature	0°C ~ +40°C	0°C ~ +40°C	0°C ~ +40°C
Operating Humidity	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing
Certifications	CE / FCC / VCCI / BSMI / RCM / CCC / UKCA	CE / FCC / VCCI / BSMI / RCM / CCC / UKCA	JATE / CE / FCC / BSMI / NCC / IC / SRRC / CCC / VCCI / RCM
QNAP SD-WAN solution, QuWAN	Yes	Yes	Yes




	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 (w)	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)	-

Highly Efficient,  
Economic and Secure



	QuCPE-3032	QuCPE-3034		QuCPE-7012		
						
Model	QuCPE-3032-C3558R-8G	QuCPE-3034-C3758R-16G		QuCPE-7012-D2166NT-64G	QuCPE-7012-D2146NT-32G	QuCPE-7012-D2123IT-8G
System	QNE Network	QNE Network		QNE Network		
CPU	Intel® Atom® C3558R 4-core 2.4 GHz processor	Intel® Atom® C3758R 8-core 2.4 GHz processor		Intel® Xeon® D-2166NT 12-core/ 24-thread 2.0GHz processor (16.6M Cache; up to 3.0 GHz)	Intel® Xeon® D-2146NT 8-core/ 16-thread 2.3GHz processor (11M Cache; burst up to 3.0GHz)	Intel® Xeon® D-2123IT 4C/8T (11M Cache, 2.20 GHz, up to 3GHz)
System Memory	8GB DDR4 2400MHz Non-ECC UDIMM(1 x 8 GB)	16GB DDR4 2400MHz Non-ECC UDIMM(2 x 8 GB)		64GB DDR4 2666MHz ECC RDIMM (4 x 16GB)	32GB DDR4 2666MHz ECC RDIMM (2 x 16GB)	8GB DDR4 2666MHz ECC RDIMM (1 x 8GB)
Maximum Memory	128GB (2x64GB)	128GB (2x64GB)		128 GB (UDIMM) or 256GB (RDIMM)		
Memory Slot	2 x 288pin DDR4-2400 slots	2 x 288pin DDR4-2400 slots		8 x Long-DIMM DDR4 DDR4 2133/2400MHz slots, up to 128 GB (UDIMM) or 256GB (RDIMM)		
Drive Bays	-	-		2 x 2.5-inch SATA 6Gb/s, 3Gb/s		
PCIe Slot	-	-		1 x PCIe Gen 3 x8		
Console Port (RJ45)	1	1		1		
Fan	2 x 4cm Smart Fan	2 x 4cm Smart Fan		3 x Cooling fans with smart fan		
M.2 SSD Slots	2 x M.2 2280 NVMe	2 x M.2 2280 NVMe		-		
USB 2.0 port	1 Type-A	1 Type-A		1		
USB 3.2 Gen 1 port	1 Type-A	1 Type-A		1		
Power	DC in, 60w	DC in, 60w		Redundant power 300W, 90V~264V AC		
Intel QAT support	Yes	Yes		Yes	Yes	
SR-IOV support	Yes	Yes		Yes		
Intel DPDK support	Yes	Yes		Yes		
Dimension W x D x H (mm)	285 x 237 x 46	285 x 237 x 46		430 x 426 x 44.2		
Total number of built-in and Pre-configured Ports	10	12		12		
10GbE SFP+	2	4		4		
2.5GbE (RJ45)	8	8		8		
Network Module Slot	-	-		1		
Form Factor	Desktop	Desktop		Rackmount, 1U		


	QGD-1602P			QGD-1600P		QGD-3014-16PT
						
Model	QGD-1602P-C3758-16G	QGD-1602P-C3558-8G		QGD-1600P-8G	QGD-1600P-4G	QGD-3014-16PT-8G
Management Type	Web Managed	Web Managed		Web Managed	Web Managed	Web Managed
PCIe Slot	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)	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)	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)	-
USB 3.2 Gen 1 port	2	2		1	1	3
USB 2.0 port	-	-		2	2	-
Management Port	2 x 5GbE ; 2 x 1GbE	2 x 5GbE ; 2 x 1GbE		1 x 1GbE	1 x 1GbE	2 x 2.5GbE
USB 3.2 Gen 2 (10Gbps) Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter	-
HDMI Output	-	-		1	1	2
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit		Internal Power Supply Unit	Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption (w)	500W	280W		418W	418W	250W
Input Power Type	AC	AC		AC	AC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz		100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	32K	32K		8K	8K	8K
Total Non-Blocking Throughput	48Gbps	48Gbps		16Gbps	16Gbps	16Gbps
Switching Capacity	96Gbps	96Gbps		32Gbps	32Gbps	32Gbps
Management Interface	Web	Web		Web	Web	Web
Energy Efficient Ethernet (IEEE 802.3az complaint)	-	-		Yes	Yes	Yes
Fan	System: 3 x 4 cm (12V DC)	System: 3 x 4 cm (12V DC)		System: 2 x 4 cm (12V DC)	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 802.3bz 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 802.3bz 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	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	18	18		16	16	16
10GbE SFP+	2 10G/1G	2 10G/1G		-	-	-
2.5GbE (RJ45)	8	8		-	-	-
1GbE (RJ45)	8	8		14	14	14
1GbE SFP/RJ45 Combo Ports	-	-		2	2	2
Total PoE Ports	16	16		16	16	16
PoE PSE (802.3af, 15.4W)	Ports 1-16	Ports 1-16		Ports 1-16	Ports 1-16	Ports 1-16
PoE+ PSE (802.3at, 30W)	Ports 1-16	Ports 1-16		Ports 1-16	Ports 1-16	Ports 1-16
PoE++ PSE (802.3bt, 60W)	-	-		Ports 1-4	Ports 1-4	-
PoE++ PSE (802.3bt, 90W)	Ports 1-4	Ports 1-4		-	-	-
PoE Power Output	Ports 1-4 (90W), Ports 5-16 (30W)	Ports 1-4 (90W), Ports 5-16 (30W)		Ports 1-4 (60W), Ports 5-16 (30W)	Ports 1-4 (60W), Ports 5-16 (30W)	Ports 1-16 (Max 30W)
Total PoE Power Budget	370W	200W		360W	360W	140W
Form Factor	Rackmount	Rackmount		Rackmount	Rackmount	Desktop
Dimensions (HxWxD mm)	44.2 x 435.2 x 327.7	44.2 x 435.2 x 327.7		47.2 x 436.2 x 326.2	47.2 x 436.2 x 326.2	130 x 295 x 224.8
Net Weight (kg)	4.37	4.37		4.41	4.41	4.08

	QGD-1602			QGD-1600	
					
Model	QGD-1602-C3558-8G	QGD-1602-C3758-16G		QGD-1600-4G	QGD-1600-8G
Management Type	Web Managed	Web Managed		Web Managed	Web Managed
PCIe Slot	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)	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)	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)
USB 3.2 Gen 1 port	2	2		1	1
USB 2.0 port	-	-		2	2
Management Port	2 x 5GbE ; 2 x 1GbE	2 x 5GbE ; 2 x 1GbE		1 x 1GbE	1 x 1GbE
USB 3.2 Gen 2 (10Gbps) Port	Optional via a PCIe adapter	Optional via a PCIe adapter		Optional via a PCIe adapter	Optional via a PCIe adapter
HDMI Output	-	-		1	1
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit		Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption (w)	100W	100W		100W	100W
Input Power Type	AC	AC		AC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz		100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	32K	32K		8K	8K
Total Non-Blocking Throughput	48Gbps	48Gbps		16Gbps	16Gbps
Switching Capacity	96Gbps	96Gbps		32Gbps	32Gbps
Management Interface	Web	Web		Web	Web
Energy Efficient Ethernet (IEEE 802.3az complaint)	-	-		Yes	Yes
Fan	System: 3 x 4 cm (12V DC)	System: 3 x 4 cm (12V DC)		System: 2 x 4 cm (12V DC)	System: 2 x 4 cm (12V DC)
Supported Standards	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 802.1q 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 802.3bz 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 802.1q 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 802.1q 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 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization
Number of Ports	18	18		16	16
10GbE SFP+	2 10G/1G	2 10G/1G		-	-
2.5GbE (RJ45)	8	8		-	-
1GbE (RJ45)	8	8		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)	Ports 1-4	-		-	-
PoE Power Output	-	-		Ports 1-4 (60W), Ports 5-16 (30W)	Ports 1-4 (90W), Ports 5-16 (30W)
Total PoE Power Budget	-	-		360W	370W
Form Factor	Rackmount	Rackmount		Rackmount	Rackmount
Dimensions (HxWxD mm)	44.2, 435.2, 327.7	44.2, 435.2, 327.7		47.2, 436.2, 326.2	47.2, 436.2, 326.2
Net Weight (kg)	4.37	4.37		4.41	4.41

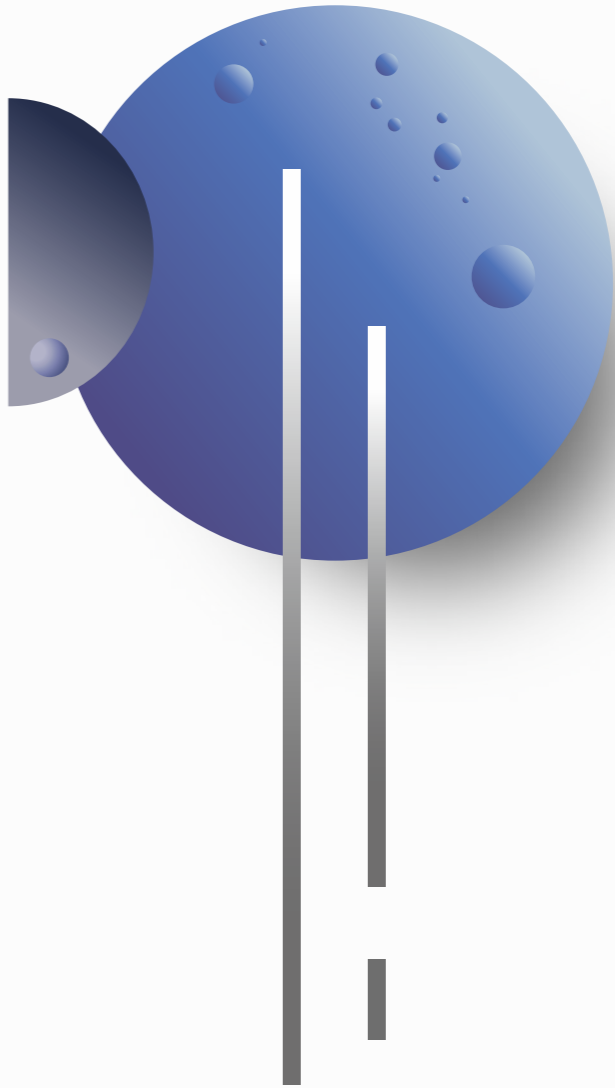
# Secure surveillance system & Smart Video Conferencing Solution

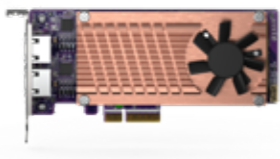
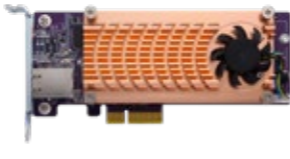

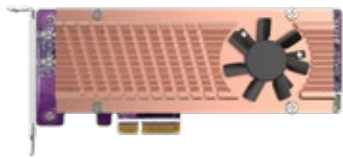


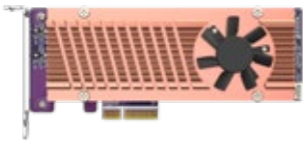
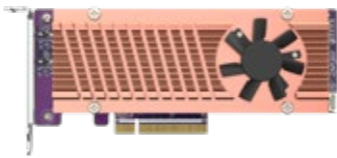
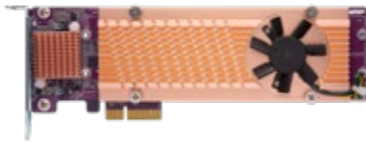

	QVP-63B	QVP-85B		QVP-63A	QVP-41B
					
Model	QVP-63B	QVP-85B		QVP-63A	QVP-41B
Operating System	QVR Pro OS (QVP)	QVR Pro OS (QVP)		QVR Pro OS (QVP)	QVR Pro OS (QVP)
CPU	Intel® Core™ i3 Processor	Intel® Core™ i5 Processor		Intel® Core™ i3-8100T 4-core 3.1 GHz Processor	Intel Celeron ® Processor
CPU Architecture	64-bit x86	64-bit x86		64-bit x86	64-bit x86
Graphic Processors	Intel® UHD Graphics 630	Intel® UHD Graphics 630		Intel® UHD Graphics 630	Intel® HD Graphics 600
System Memory	16 GB SODIMM DDR4 (1 x 16 GB)	32 GB SODIMM DDR4 (2 x 16 GB)		16 GB SODIMM DDR4 (2 x 8 GB)	8 GB SODIMM DDR4 (2 x 4 GB)
Maximum Memory	64 GB ( 2 x 32 GB)	64 GB ( 2 x 32 GB)		32 GB ( 2 x 16 GB)	8 GB (2 x 4 GB)
Memory Slot	2 x SO-DIMM DDR4	2 x SO-DIMM DDR4		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		6 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes	Yes		Yes	Yes
M.2 SSD Slot	2 x M.2 2280 PCIe Gen4 x4 slots	2 x M.2 2280 PCIe Gen4 x4 slots		2 x M.2 2280 PCIe Gen3 x2 slots	2 x M.2 2280 SATA x2 slots
Max Live Cameras (Local Display)	50ch @ All 720p,H.264, 30FPS 30ch @ All 1080p,H.264, 30FPS	56ch @ All 720p,H.264, 30FPS 34ch @ All 1080p,H.264, 30FPS		32ch @ All 720p,H.264, 30FPS 16ch @ All 1080p,H.264, 30FPS	24ch @ All 720p,H.264, 30FPS 12ch @ All 1080p,H.264, 30FPS
Max Playback Cameras (Local Display)	16	16		12	12
Max Concurrent Connection (Client)	16 (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		16 (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	8		8	8
Max Channel	36 H264 / 1920x1080 / 30FPS	64 H264 / 1920x1080 / 30FPS		36 H264 / 1920x1080 / 30FPS	24 H264 / 1920x1080 / 30FPS
Max Throughput	1188 Mbps	1686 Mbps		396 Mbps	288 Mbps
Gigabit Ethernet Port(RJ45)	-	-		2	14
2.5 Gigabit Ethernet Port	2	2		-	2
1GbE SFP/RJ45 Combo Ports	-	-		-	2
PoE PSE (802.3af, 15.4W)	-	-		-	port 1-16
PoE+ PSE (802.3at, 30W)	-	-		-	port 1-16
PoE Power Output	-	-		-	port 1-16 (Max 30W per port)
Total PoE Power Budget	-	-		-	140W
PCI slot	2 Slot 1: PCIe Gen 4 x16 Slot 2: PCIe Gen 4 x4	2 Slot 1: PCIe Gen 4 x16 Slot 2: PCIe Gen 4 x4		2 Slot 1: PCIe Gen 3 x16 (CPU) Slot 2: PCIe Gen 3 x4 (PCH)	-
USB 3.2 Gen 1 port	--	--		1	3
USB 3.2 Gen 2 (10Gbps)Port	1 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 2 x Type-A USB 3.2 Gen 2 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 1.4b (up to 4096 x 2160 @ 30Hz)	1, HDMI 1.4b (up to 4096 x 2160 @ 30Hz)		1, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)	2, HDMI 2.0 (up to 3840 x 2160 @ 60Hz)
Form Factor	Tower	Tower		Tower	Tower
Dimensions (HxWxD mm)	188.2 x 264.3 x 280.8	188.2 x 329.3 x 280.8		188.2 x 264.3 x 279.6	130 x 295 x 224.8
Net Weight (kg)	6.32	7.3		6.553	4.08
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)		0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V	250W, 100-240V		250W, 100-240V	250W, 100-240V
Power Consumption (w): Operating Mode, Typical	79.363 With WD10EFRX drives fully populated	85.701 With WD10EFRX drives fully populated		45.6	43.584
Fan	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		System fan: 2 x 92mm, 12VDC CPU fan: 2 x 60mm blower fan	System fan: 120 x 120mm, 12VDC
Tray Locker	Yes	Yes		Yes	Yes


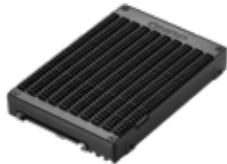


	KoiBox-100W
	
Model	koibox-100w
Operating System	KoiMeeter
CPU	Intel® Celeron® dual-core 1.8GHz
System Memory	4GB DDR4
Flash Memory	M.2 2242 SSD 30GB
Drive Bay	1 x 2.5-inch SATA (HDD/SSD not included)
Gigabit Ethernet Port	1 x 1GbE RJ45
Wi-Fi / Bluetooth	Intel Wi-Fi 6 AX201, 802.11ax, Bluetooth 5.2
HDMI Output	1 x HDMI 1.4b output
USB Port	4 x USB 3.2 Gen 2 Type-A
IR sensor	Yes, supports remote controller (RM-IR004)
Buttons	1 x Power button
LED Indicators	Power status (On: blue, Standby: blue breathing light, Off: red)
Power Supply Unit	36W, 100-240V DC, 50/60Hz
Security Slot	1x Kensington security slot
Dimensions (H x W x D)	45 x 232 x 152
Net Weight	1.09 kg (2.4lbs)
Operating Temperature & Relative Humidity	0 ~ 40°C ( 32°F ~ 104°F ) · 5 - 95% RH non-condensing

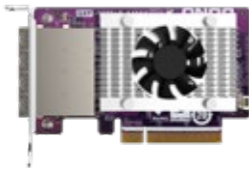



Versatile feature-rich accessories to enhance the performance of your system



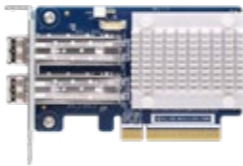
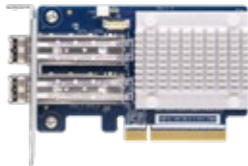


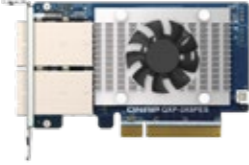



	QM2-2P2G2T	QM2-2P10G1TB		QM2-2S-220A	QM2-2P-244A
					
Model	QM2-2P2G2T	QM2-2P10G1TB		QM2-2S-220A	QM2-2P-244A
description	Dual M.2 2280 SATA SSD & dual-port 2.5GbE expansion card	Dual M.2 2280 PCIe NVMe SSD & single-port 10GbE expansion card		Dual M.2 22110/2280 SATA SSD expansion card	Dual M.2 22110/2280 PCIe NVMe SSD expansion card




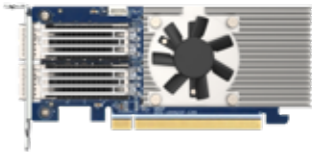
	QM2-2P-344A	QM2-2P-384A		QM2-4S-240	QDA-SA3
					
Model	QM2-2P-344A	QM2-2P-384A		QM2-4S-240	QDA-SA3
description	Dual M.2 22110/2280 PCIe NVMe SSD expansion card	Dual M.2 22110/2280 PCIe NVMe SSD expansion card		Dual M.2 22110/2280 SATA SSD expansion card	2.5-inch 6Gbps SAS to SATA drive adapter





	QDA-UMP4	QDA-U2MP		QDA-A2AR	QDA-A2MAR
					
Model	QDA-UMP4	QDA-U2MP		QDA-A2AR	QDA-A2MAR
description	Use an M.2 PCIe NVMe SSD in a U.2 PCIe NVMe SSD drive bay for PC and NAS	Use two M.2 PCIe NVMe SSD in a U.2 PCIe NVMe SSD drive bay for PC and NAS		Use two 2.5-inch SATA drives in a single 3.5-inch SATA drive bay with RAID support for PC and NAS	Use two M.2 SATA SSDs in a single 2.5-inch SATA drive bay with RAID support for PC and NAS





	QXP-1600eS-A1164	QXP-10G2U3A		QXP-400eS-A1164	QXP-800eS-A1164
					
Model	QXP-1600eS-A1164	QXP-10G2U3A		QXP-400eS-A1164	QXP-800eS-A1164
description	16-port SATA expansion card	USB 3.2 Gen 2 dual-port PCIe expansion card		Quad-port SATA expansion card (1 x SFF-8088)	8-port SATA expansion card (2 x SFF-8088)

	QXP-T32P	QXP-1620S-B3616W		QXP-16G2FC	QXP-32G2FC
					
Model	QXP-T32P	QXP-1620S-B3616W		QXP-16G2FC	QXP-32G2FC
description	Dual-port Thunderbolt™ 3 Expansion Card	Quad-port External SAS 12Gb/s storage expansion card		Dual-port 16Gb Enhanced Gen 5 Fibre Channel expansion card with SFP+ transceivers	Dual-port 32Gb Gen 6 Fibre Channel expansion card with SFP+ transceivers

	QXP-3X8PES	QXP-3X4PES		QXP-W6-AX200	QXG-10G1T
					
Model	QXP-3X8PES	QXP-3X4PES		QXP-W6-AX200	QXG-10G1T
description	Dual-port PCIe Gen 3 x8 expansion card	Dual-port PCIe Gen 3 x4 expansion card		2.4/5 GHz Dual Band Dual Concurrent (DBDC), 4 x 4 Multi-user MIMO (MU-MIMO), low-profile PCI Express (PCIe) 2.0 x1 wireless adapter	Single-port, 5-speed 10 GbE network expansion card

	QXG-10G2TB	QXG-25G2SF-CX6		QXG-100G2SF-E810	QXG-100G2SF-CX6
					
Model	QXG-10G2TB	QXG-25G2SF-CX6		QXG-100G2SF-E810	QXG-100G2SF-CX6
description	Dual-port, 5-speed 10 GbE network expansion card	Dual-port 25 GbE network expansion card		Dual-port 100 GbE network expansion card	Dual-port 100 GbE network expansion card

	QXG-2G1T-I225	QXG-2G2T-I225		QXG-2G4T-I225	QXG-5G1T-111C
					
Model	QXG-2G1T-I225	QXG-2G2T-I225		QXG-2G4T-I225	QXG-5G1T-111C
description	Single-port 2.5 GbE network expansion card	Dual-port 2.5 GbE network expansion card		Quad-port 2.5 GbE network expansion card	Single-port, 4-speed 5 GbE network expansion card

	QXG-5G2T-111C	QXG-5G4T-111C		QNA-T310G1S	QNA-T310G1T
					
Model	QXG-5G2T-111C	QXG-5G4T-111C		QNA-T310G1S	QNA-T310G1T
description	Dual-port, 4-speed 5 GbE network expansion card	Quad-port, 4-speed 5 GbE network expansion card		Single-port Thunderbolt 3 to single-port 10GbE SFP+	Single-port Thunderbolt 3 to single-port 10GbE NBASE-T RJ-45

	QNA-UC5G1T
	
Model	QNA-UC5G1T
description	USB 3.2 Gen 1 to 5GbE Adapter

\*All specifications are subject to change without notice



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