

An abstract graphic design featuring a large, stylized number '4' in the background. The '4' is composed of various geometric shapes and colors, including purple, blue, and orange. To the left of the '4', there are several thin, parallel lines in purple and blue. In the foreground, there is a large, semi-transparent circle with a gradient from orange to red. Below the circle, there is a small, dark, semi-transparent circle. To the right of the circle, there are three horizontal, parallel lines in a gradient of blue, green, and yellow. At the bottom right, there is a square with a gradient from green to yellow. The overall design is modern and tech-oriented.

**Stay  
one  
step  
ahead**

Product Selection Guide



## Système d'exploitation QES

Le système d'exploitation QES est fondé sur le noyau FreeBSD simple et efficace et sur le système de fichiers ZFS qui, au fil des années, s'est avéré être le mieux adapté aux applications d'entreprise haut de gamme



## Priorité à l'intégrité des données

QES utilise ses sommes de contrôle de bout en bout pour détecter et corriger la corruption silencieuse des données causée par des défauts matériels, des bugs dans les microprogrammes ou des erreurs de métadonnées. Si une violation de l'intégrité est détectée, QES répare automatiquement les dommages en utilisant les données de l'autre miroir avant que les données ne soient transmises aux applications.

# Haute disponibilité actif-actif avec une efficacité du stockage optimale

Le NAS ES basé sur QES est alimenté par deux processeurs et dispose d'une architecture à double contrôleur actif-actif, garantissant aux entreprises une haute disponibilité avec un temps d'arrêt quasi nul, car le contrôleur de secours peut rapidement prendre le relais si un contrôleur tombe en panne.



## Déduplication et compression des données

QES prend en charge la déduplication des données par bloc pour récupérer l'espace de stockage utilisé par les données redondantes/répétées et la compression des données en ligne pour réduire la taille des fichiers. Ces deux fonctions optimisent l'utilisation du stockage et permettent aux entreprises de réaliser des économies lorsqu'elles utilisent des disques SSD.



## Système actif-actif à double contrôleur

Les deux contrôleurs du NAS ES peuvent gérer le flux de trafic, ainsi que la protection Copy-To-Flash contre les pannes de courant et la conception de l'interface SAS à double chemin. Outre la conservation des ressources informatiques, un service de stockage à grande vitesse, ininterrompu et à haute disponibilité est également fourni par le biais de protocoles de communication tels que SMB, NFS et iSCSI.

# Stockage All flash. Performances ultimes

Les solutions de stockage All-Flash de QNAP sont dotées des technologies de réduction des données ZFS et d'optimisation des SSD afin de maximiser les performances et la durée de vie des SSD - parfait pour garder votre entreprise agile et efficace !



## Stockage optimisé pour la mémoire flash

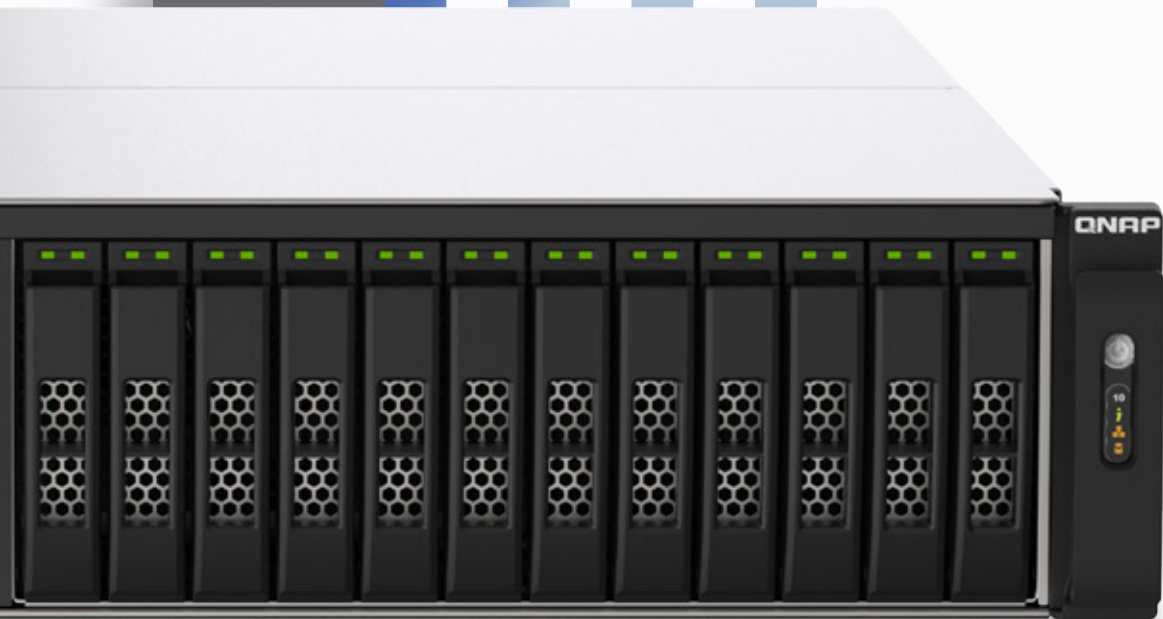
L'amplification de l'écriture est un effet indésirable des SSD, qui pose des problèmes de performance et d'endurance de la mémoire flash. L'algorithme exclusif Write Coalescing de QNAP est conçu pour l'optimisation de la mémoire flash en transformant toutes les écritures aléatoires en écritures séquentielles et en réduisant les entrées/sorties. Non seulement il augmente efficacement les performances d'écriture aléatoire pour les environnements All-flash, mais il peut également améliorer la durée de vie des SSD.



## Quality of Service

Le QoS donne la priorité aux performances des applications critiques qui s'exécutent en même temps que des applications non critiques et réduit les problèmes de nuisances sonores.





## Compression et compactage des données en ligne

La compression des données en ligne réduit la taille des fichiers afin de diminuer la charge de travail des E/S de stockage et d'améliorer les performances. Elle permet également d'optimiser l'utilisation du stockage en cas d'over-provisioning des SSD.



## SSD TRIM

Alors que presque tous les disques SSD ont montré une dégradation constante des performances en écriture, TRIM aide à surmonter les baisses de performances en écriture. Le SSD TRIM permet au système d'informer les SSD de supprimer les blocs de données inutiles. Les tâches de suppression sont traitées pendant les périodes d'inactivité du système, ce qui signifie qu'il n'est pas nécessaire d'attendre que de nouvelles données soient écrites sur le bloc.

# Système d'exploitation ZFS haute performance avec une fiabilité supérieure

Le système d'exploitation QNAP "QuTS hero" combine le système QTS basé sur les applications avec le système de fichiers ZFS 128 bits pour offrir une gestion flexible du stockage, une protection complète des données et des performances optimisées afin de répondre aux besoins des applications critiques.

## ZFS

### Une technologie efficace de réduction des données

La déduplication des données en ligne est basée sur les blocs et s'exécute avant que les données ne soient écrites sur le stockage. Cela permet d'optimiser l'utilisation du stockage tout en réduisant considérablement les besoins en capacité de stockage. Associé aux technologies de compression et de compactage en ligne, ZFS réduit considérablement l'empreinte de stockage globale, ce qui est particulièrement utile pour augmenter l'efficacité du stockage sur SSD lorsque des données hautement répétitives ou des petits fichiers massifs sont générés.



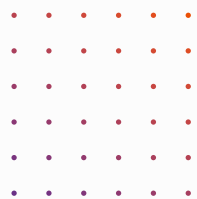
### Snapshots instantanés quasi illimités

ZFS prend en charge jusqu'à 65 535 snapshots pour les LUN iSCSI et les dossiers partagés afin de réaliser une version complète des snapshots. Si un snapshot est créé toutes les heures, soit 24 snapshots par jour, il est possible de créer jusqu'à 7 ans de snapshots sans avoir besoin d'en supprimer !



### Une capacité pouvant atteindre le pétaoctet par dossier partagé.

Le système de fichiers 128 bit ZFS présente un énorme potentiel de capacité et prend en charge la gestion native des niveaux RAID standard et des dispositions RAID ZFS supplémentaires (RAID Z). Les solutions de stockage QNAP basées sur ZFS offrent une capacité allant jusqu'à 1 PB pour les dossiers partagés individuels, permettant ainsi aux entreprises de s'attaquer aux applications exigeantes en matière de stockage.



# QUTS hero

QUTS hero

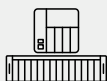


## SnapSync en temps réel

La fonction avancée de SnapSync en temps réel basée sur les blocs garantit que le NAS primaire et le NAS secondaire conservent toujours les mêmes données, offrant ainsi la meilleure prise en charge des opérations commerciales en continu et aidant les utilisateurs à éliminer le risque de perte de données!

# Réseau haut débit 25GbE

Permet un débit rapide comme l'éclair pour les tâches exigeantes en bande passante telles que la virtualisation, la transmission de données massives et la sauvegarde/restauration rapide.



## NAS All-flash prêt pour le 25GbE

Le TS-h3088XU-RP intègre une SmartNIC SFP28 à double port 25GbE avec le contrôleur NVIDIA® Mellanox ConnectX-4 Lx SmartNIC qui prend en charge iSCSI Extensions for RDMA (iSER) pour augmenter les performances de transfert de données entre le NAS et le serveur ESXi et décharger les charges de travail du CPU.



## Switch manageable 25GbE rentable

Le QSW-M5216-1T est un Switch web manageable de niveau 2 25GbE qui offre des interfaces réseau flexibles pour une compatibilité élevée à un prix intéressant, permettant aux petites entreprises de passer rapidement à un réseau très haut débit en s'intégrant à l'infrastructure réseau existante.

# Connectivité 10GbE : L'avenir, c'est maintenant!

La connectivité 10GbE améliore les performances globales du réseau et les tâches quotidiennes grâce à une bande passante dix fois supérieure à celle du 1GbE. En proposant des NAS, des adaptateurs réseau et des switches 10GbE-ready, QNAP est un fournisseur unique pour tout ce dont vous avez besoin pour créer votre propre environnement 10GbE.



## Solutions NAS 10GbE

QNAP propose une gamme de NAS avec des solutions matérielles et logicielles intégrées qui peuvent tirer le meilleur parti de la bande passante fournie par les réseaux 10GbE.



## Switches 10GbE

Les switches 10GbE de la gamme QSW de QNAP prennent en charge le 10GBASE-T et NBASE-T, ce qui vous permet de profiter de vitesses réseau plus élevées avec les câbles Cat 5e et 6a existants. Les ports SFP+ (fibre) et RJ45 (cuivre) sont disponibles pour répondre à vos besoins réseau.



## Adaptateurs réseau 10GbE

QNAP propose une carte d'extension PCIe 10GbE et des adaptateurs Thunderbolt vers 10GbE pour doter les appareils d'une connectivité 10GbE. La carte d'extension QM2 n'inclut pas seulement la connectivité 10GbE, mais offre également la possibilité d'ajouter des SSD M.2 à votre station de travail ou à votre NAS.

# Le 2.5GbE n'est pas seulement pour les bureaux, mais aussi pour les particuliers.

Le manque de switches de catégorie grand public a rendu difficile l'adoption du 2.5GbE/5GbE par les particuliers. QNAP propose désormais des switches multiport rentables qui prennent en charge l'Ethernet 10G/5G/2.5G/1G/100M, vous aidant ainsi à transformer votre réseau domestique à un prix raisonnable.



## Switches 2,5GbE

QNAP propose une série de switches 10GbE prenant en charge cinq vitesses (10G / 5G / 2,5G / 1G / 100M) et une série de switches 2,5GbE. Avec des ports 2,5GbE, le switch QNAP peut instantanément mettre à niveau votre réseau pour tirer parti des périphériques et NAS compatibles 2,5GbE.



## Fonctionne avec les câbles existants

Aucun câble ou connecteur spécial n'est nécessaire pour profiter de 2,5GbE. Utilisez simplement vos câbles CAT5e existants avec votre nouvelle infrastructure 2,5GbE.



### 2.5 fois plus rapide

2,5GbE est 2,5 fois plus rapide que l'Ethernet standard (1GbE), augmentant ainsi les performances du réseau pour accroître la productivité.



### Plus abordable

Si vous ne pouvez pas vous permettre une mise à niveau vers le 10GbE pour le moment, le 2,5GbE - plus abordable - offre une amélioration notable des vitesses Ethernet actuelles.



# Performances incroyables et connectivité de pointe grâce aux NAS Thunderbolt

QNAP offre le meilleur de la connectivité avec les NAS Thunderbolt™. Les professionnels de la production vidéo utilisant les NAS Thunderbolt™ de QNAP bénéficient de flux de travail efficaces, d'une vitesse sans précédent et d'une incroyable polyvalence.



## Transfert ultra-rapide

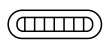
Editez directement sur votre NAS grâce à la connectivité Thunderbolt™ 3 ultra rapide. Avec des vitesses potentielles allant jusqu'à 40Gbps, connectez vos Macs compatibles et autres appareils Thunderbolt™ 3 directement au NAS et travaillez sans vous soucier du débit réseau..



## Facilitez les flux de travail 10GbE avec Thunderbolt-to-Ethernet.

L'innovant convertisseur T2E établit un lien entre les réseaux Thunderbolt et Ethernet, permettant aux ordinateurs compatibles Thunderbolt de se connecter à ces réseaux via leur connexion Thunderbolt au NAS Thunderbolt de QNAP. Cela permet d'économiser un port 10GbE et élimine le besoin d'adaptateurs ou de cartes réseau supplémentaires.





## Haute disponibilité avec l'USB Type-C

L'utilisation de l'USB Type-C par Thunderbolt 3 offre une connexion universelle du NAS QNAP aux appareils Thunderbolt ainsi qu'à d'innombrables appareils USB Type-C par le biais d'un seul câble, ce qui permet le partage de fichiers et le stockage centralisé de données sans avoir à utiliser plusieurs câbles.



## Station de collaboration pour Mac et Windows

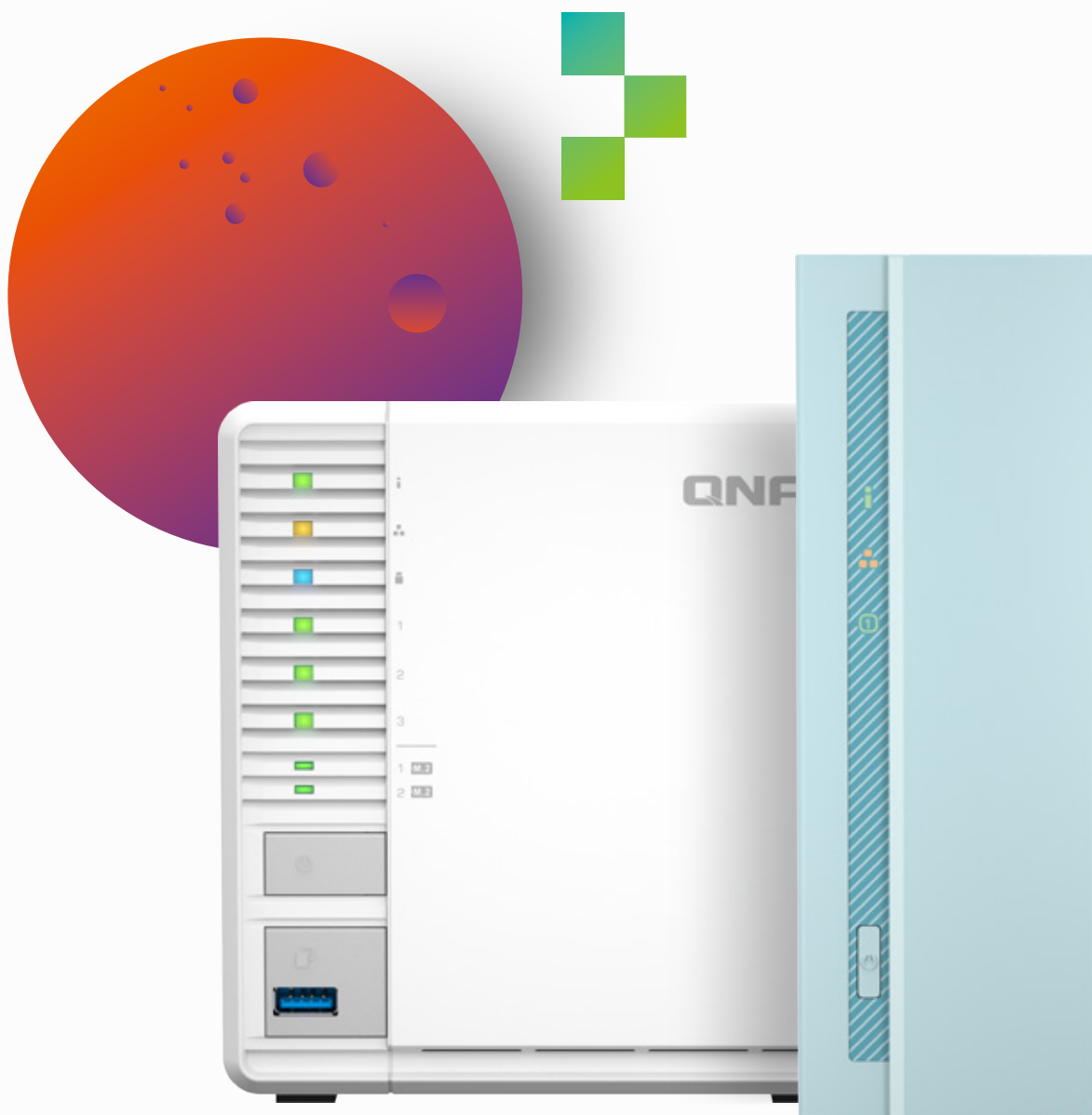
La bande passante supérieure du Thunderbolt 3 permet un montage vidéo fluide et un partage de fichiers plus rapide pour les photographes, les monteurs vidéo et les graphistes. Il est possible de connecter jusqu'à 2 appareils Thunderbolt™ au NAS Thunderbolt de QNAP pour traiter simultanément l'édition photo et audio en temps réel sans affecter les performances du système.



# Créez facilement votre cloud personnel et accédez-y depuis n'importe où



Contrairement à l'espace de stockage limité et aux problèmes de sécurité potentiels des services de cloud public, le NAS de QNAP est avantageux pour établir un cloud personnel sécurisé et de grande capacité.





## Une solution de sauvegarde tout-en-un et facile à utiliser

Le NAS QNAP peut effectuer de nombreuses tâches, mais son cœur est une solution de sauvegarde complète pour protéger vos fichiers et vos données. En sauvegardant régulièrement vos fichiers et le contenu de votre appareil, vous pouvez faire de la perte de données une histoire ancienne.



## Un plaisir multimédia amélioré

Le NAS QNAP est livré avec une large gamme d'applications multimédia, notamment Photo Station, Video Station et Music Station, vous permettant de gérer et de visualiser facilement vos fichiers multimédia.



## Connexion à distance facile et sécurisée avec myQNAPcloud

myQNAPcloud vous permet de rester connecté à votre NAS QNAP en utilisant un nom de domaine unique. Aucun routage ou configuration complexe n'est nécessaire, et myQNAPcloud renforce les clés des certificats SSL à 2048 bits pour permettre un accès à distance sécurisé, la gestion et le partage des fichiers et vérifier l'état de votre système de n'importe où.



## Un centre de sauvegarde sécurisé avec protection des snapshots

Les snapshots sont essentiels pour la protection des données des NAS, et leur fonction de niveau bloc en fait une méthode de protection des données fiable face aux menaces croissantes de ransomware.



## Connexion à un téléviseur ou un moniteur avec HDMI

Grâce à la sortie HDMI, le NAS de QNAP vous permet de profiter directement du contenu multimédia, d'utiliser des navigateurs web, de gérer votre NAS, ou de regarder des vidéos de surveillance enregistrées ou des flux en direct sur votre NAS.



# La nouvelle génération de solution de surveillance IP intelligente et de sauvegarde à distance

Avec la solution de surveillance intelligente QVR Elite sur abonnement, vous ne payez que pour les licences de canaux dont vous avez besoin, ce qui vous permet de protéger votre bien, à un prix raisonnable. Vous pouvez disposer d'un espace de stockage dédié et indépendant pour les données de surveillance sur le NAS de QNAP et profiter d'une gestion simplifiée des caméras, de l'allocation d'espace de stockage, de la visualisation en direct des caméras et de la lecture. Les enregistrements sont sauvegardés sous forme de fichiers MP4 pour être lus sur presque tous les appareils.



## Surveillance directe sur un écran HDMI

Lisez facilement les enregistrements sur un écran HDMI connecté à l'aide du QVR Smart Client. Recherchez des enregistrements d'événements dans une période de temps et une zone de détection spécifiées dans l'interface utilisateur.



## Exploitez les applications basées sur l'IA pour des services à valeur ajoutée

Les séquences de surveillance du QVR Elite peuvent être traitées par plusieurs applications d'analyse vidéo basées sur l'intelligence artificielle de QNAP (par exemple, QVR Face, QVR Human, QVR DoorAccess) afin de doter vos systèmes de surveillance d'un accès intelligent aux portes, d'une reconnaissance faciale, de capacités de comptage humain et plus encore.



## QVR Pro Client : Surveillance et gestion centralisées

QVR Pro Client vous permet de surveiller plusieurs canaux simultanément. Vous pouvez passer en toute souplesse de l'affichage en direct au mode de lecture afin de faciliter la surveillance et la gestion centralisées.



## Enregistrements au format vidéo MP4

Le QVR Elite enregistre les fichiers vidéo au format MP4, universellement pris en charge, ce qui permet une lecture fluide sur tous vos appareils. En outre, vous pouvez facilement sauvegarder les enregistrements sur d'autres NAS QTS / QuTS hero ou sur un espace de stockage dans le Cloud en utilisant Hybrid Backup Sync ou HybridMount.



## Capacité d'extension flexible

Vous pouvez créer plusieurs espaces d'enregistrement pour les enregistrements de QVR Elite. Si vous manquez d'espace de stockage, vous pouvez facilement étendre votre stockage NAS en vous connectant à des boîtiers d'extension QNAP.



## Faible coût : plan d'abonnement flexible

QVR Elite est basé sur un abonnement, avec des plans d'abonnement mensuels, annuels et de 3 ans. Vous pouvez construire un système de surveillance robuste à un prix mensuel peu élevé de 1,99 \$ US par canal. Vous pouvez modifier l'abonnement en fonction de vos besoins pour atteindre une meilleure rentabilité.



# QuWAN SD-WAN pour une infrastructure informatique résiliente

La solution SD-WAN QuWAN de QNAP est dotée du VPN Auto Mesh, du cryptage IPsec et d'une gestion centrée sur le cloud. Compatible avec une large gamme de solutions QNAP, QuWAN permet aux PME de construire efficacement un réseau fiable à un prix avantageux, et de faciliter la transformation numérique, l'expansion multi-sites et le travail à distance.



## VPN auto mesh

Établit automatiquement un VPN maillé et supprime la nécessité de paramétrer manuellement un VPN statique.



## Gestion en cloud

Le QuWAN Orchestrator permet une gestion centrale du réseau puissante et pratique.



## Sécurité du réseau

Adopte l'inspection approfondie des paquets pour analyser les L7-Payloads à la recherche d'informations sur le contenu des sites Web et des appareils.



## Optimisation du WAN

Le QuWAN adopte des technologies d'équilibrage de charge pour combiner la bande passante de différents FAI et hiérarchiser l'utilisation de la bande passante.



## Optimisation des coûts

Optimise la transmission par fibre/réseau pour réduire le coût des équipements VPN et les dépenses en bande passante.



## Interface graphique Web

Offre des fonctionnalités conviviales, notamment un tableau de bord, eMap, l'analyse du trafic, etc.

# Profitez d'une expérience Wi-Fi maillé à grande portée



Le QMiro-201W et le QMiroPlus-201W prennent en charge la transmission sans fil tri-bande Wi-Fi 5 et le transfert Mesh Wi-Fi, garantissant ainsi des connexions Wi-Fi stables et une meilleure qualité de signal via un réseau Mesh Wi-Fi.



## Connectez votre maison avec le Wi-Fi maillé tri-bande haute portée

QMiro-201W / QMiroPlus-201W adopte la technologie Wi-Fi Handover, permettant à plusieurs utilisateurs d'être automatiquement connectés au routeur dont le signal Wi-Fi est le plus fort avec un seul SSID. Grâce à la double bande 2,4GHz/5GHz, QMiro-201W / QMiroPlus-201W fournit une fréquence Mesh 5GHz dédiée pour les connexions à large bande passante entre les routeurs Mesh Wi-Fi, garantissant des connexions Wi-Fi fluides et stables.



## Wi-Fi Mesh tri-bande dédié pour des connexions fluides

Prend en charge le Wi-Fi tri-bande de 2,4GHz, 5GHz et une bande Mesh Wi-Fi dédiée de 5GHz pour des connexions à large bande passante entre les routeurs Mesh Wi-Fi. Contrairement aux routeurs classiques à double bande dont la bande 5GHz doit être partagée entre les clients Wi-Fi et les routeurs Mesh Wi-Fi, le QMiro-201W / QMiroPlus-201W garantit des connexions Wi-Fi fluides et stables.



# Une extension de stockage flexible et économique

Le Direct-Attached Storage (DAS) ajoute une capacité de stockage supplémentaire à votre PC en étant directement connecté via un port USB ou un autre port. Par rapport au stockage en réseau (NAS), le DAS est généralement prêt à l'emploi pour un seul PC et convient aux utilisateurs qui cherchent simplement à étendre le stockage d'un seul PC et non les fonctions avancées et la connectivité réseau d'un NAS.







## Support RAID

Le DAS QNAP prend en charge différents niveaux RAID pour améliorer les performances et la protection des données.



## Interface simple

Le QNAP External RAID Manager vous aide à surveiller le système DAS, les lecteurs et l'état de fonctionnement. Il envoie automatiquement des alertes système à votre PC si une erreur se produit.



## Pour l'extension du NAS

Les DAS de QNAP peuvent être utilisés avec l'USB Type-C, SATA ou SAS pour un transfert de données plus rapide et peuvent être facilement gérés à l'aide de QTS / QuTS hero Storage & Snapshots. La série TL est adaptée à l'expansion des NAS.



## Installation sans effort

Le DAS est entièrement plug-and-use et ne nécessite aucune configuration réseau. Un bouton d'éjection est inclus pour retirer rapidement le DAS de l'ordinateur connecté.



## Pour l'extension des PC

Les DAS de QNAP sont des choix idéaux pour les utilisateurs de PC qui cherchent à étendre leur espace de stockage. Ils utilisent un port USB Type-C, SATA ou SAS pour un transfert de données plus rapide et prennent en charge les configurations RAID contrôlées par logiciel et par matériel pour une configuration de stockage flexible.



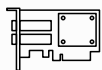
# Des accessoires polyvalents et riches en fonctionnalités pour améliorer les performances de votre système

La gamme complète de cartes et d'accessoires PCIe de QNAP permet aux utilisateurs de mettre à niveau les fonctionnalités de base des NAS/PC afin de répondre à des besoins divers et d'optimiser l'efficacité et la productivité du travail.



## Adaptateurs réseau filaires

- **Adaptateurs de la gamme QNA:** Connectez-vous à des réseaux à plus haut débit via Thunderbolt™ 3 ou USB 3.0.
- **Cartes PCIe de la gamme QM2:** Ajoutez des SSD M.2 et des ports réseau à votre NAS
- **Carte d'extension réseau:** Ajoutez de manière flexible des ports réseau et de la bande passante pour booster les performances de transfert de données.



## Cartes d'interface

- **Carte d'extension SATA QXP:** Augmentez le stockage d'un PC, d'un serveur ou d'un NAS QNAP en quelques minutes grâce à une installation simple
- **Carte d'extension Thunderbolt™ 3:** Transformez votre NAS en un NAS Thunderbolt™ 3
- **Carte d'extension M.2:** Ajoutez des SSD M.2 à votre NAS et à votre PC.
- **Carte d'extension USB:** Augmentez la vitesse de transfert USB avec une carte d'extension USB.
- **Carte d'extension Fibre Channel:** Ajoutez un NAS QNAP à votre environnement SAN Fibre Channel existant à un prix abordable.



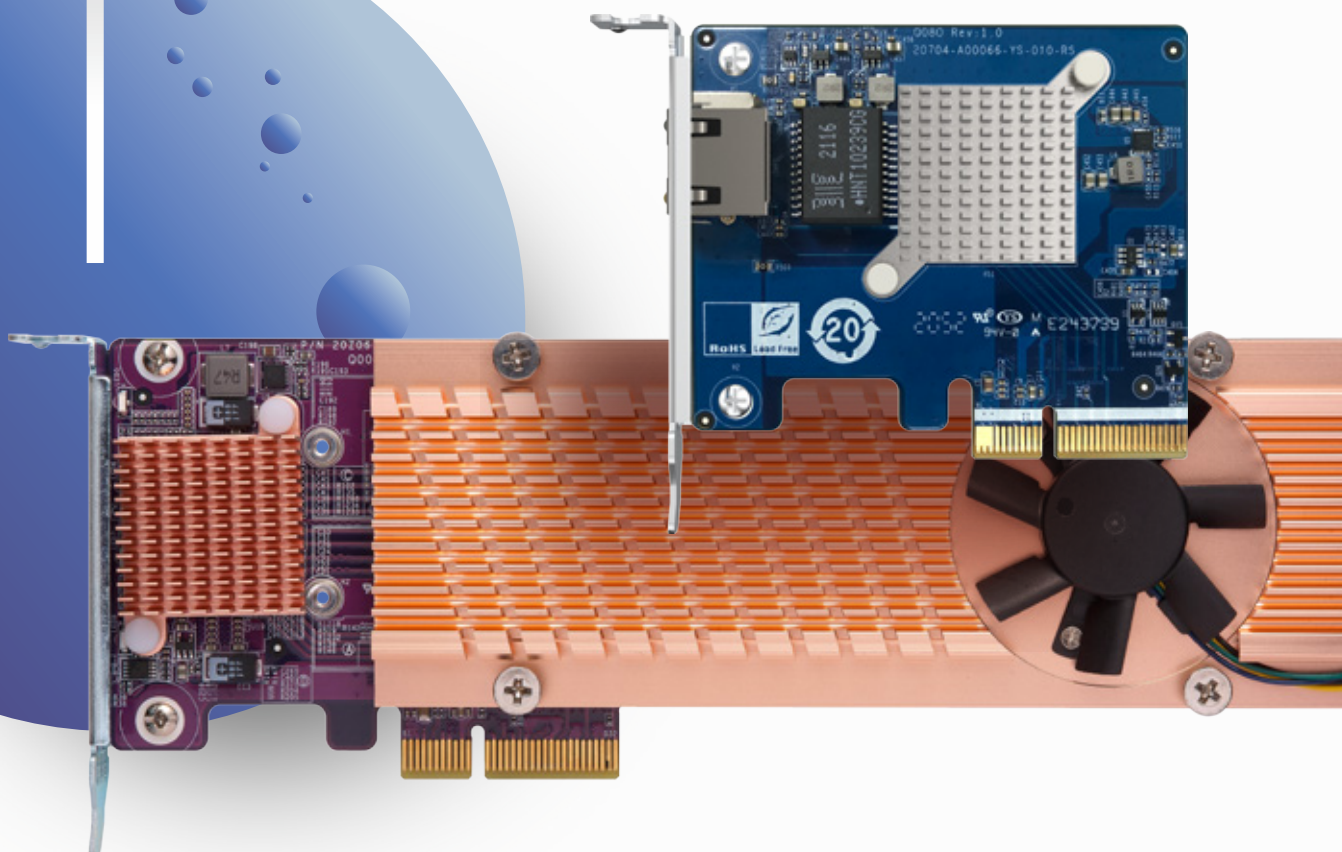
## Carte accélératrice de calcul

- **Accélérateur TPU Edge:** Tirez parti de l'accélération de l'IA à un prix abordable pour une reconnaissance d'image plus rapide sur votre NAS QNAP.
- **Carte accélératrice de calcul:** améliorez les performances pour répondre aux charges de travail les plus exigeantes.



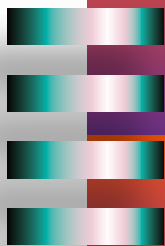
## Adaptateur de disque

- Adaptateur de disque SAS à SATA 6Gbps de 2,5 pouces
- Utiliser deux SSD NVMe PCIe M.2 dans une baie de lecteur SSD NVMe PCIe U.2 pour PC et NAS
- Adaptateur de disque SATA SSD 6Gbps de 2,5 pouces vers SAS 3,5 pouces
- Utilisez un SSD M.2 PCIe NVMe dans une baie pour SSD U.2 PCIe NVMe.
- Utilisez deux disques SATA de 2,5 pouces dans une seule baie pour disques SATA de 3,5 pouces avec support RAID.
- Utilisez deux disques SSD M.2 SATA dans une seule baie pour disques SATA de 2,5 pouces avec support RAID.





Systeme d'exploitation  
haute performance  
basé sur ZFS  
avec plus de fiabilité



	ES1686dc			
				
Model	ES1686dc-2142IT-128G	ES1686dc-2142IT-96G	ES1686dc-2123IT-64G	
CPU	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller		Intel® Xeon® D-2123IT 4-core 2.20 GHz processor (burst up to 3.0 GHz) per controller	
CPU Architecture	64-bit x86			
Graphic Processors	-			
Floating Point Unit	Yes			
Encryption Engine	Yes (AES-NI)			
Hardware-accelerated Transcoding	-			
System Memory	64 GB RDIMM DDR4 ECC (4 x 16 GB) per controller	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller	32 GB RDIMM DDR4 ECC (4x 8 GB) per controller	
Maximum Memory	512 GB (8 x 64GB)			
Memory Slot	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.			
Drive Bay	16 x 3.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s			
Hot-swappable	Yes			
M.2 Slot	-			
SSD Cache Acceleration Support	Yes Read cache only			
Gigabit Ethernet Port (RJ45)	3 for each controller (one for remote management)			
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-			
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-			
10 Gigabit Ethernet Port	4 x 10GbE SFP+ for each controller			
25 Gigabit Ethernet Port	-			
Thunderbolt Port	-			
PCIe Slot	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)			
USB 2.0 port	-			
USB 3.2 Gen 1 port	2 per each controller			
USB 3.2 Gen 2 (10Gbps) Port	-			
HDMI Output	-			
Form Factor	3U Rackmount			
Dimensions (HxWxD)	132 x 483.05 x 630.62			
Weight (Net)	25.83			
Operating temperature	0 - 40 °C (32°F - 104°F)			
Power Supply Unit	Redundant/ Hot Swap Power Vin:90~264VAC;770W			
Power Consumption: Operating Mode, Typical	500.87 Tested with drives fully populated.			
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)			
Kensington Security Slot	-			

## ES2486dc




ES2486dc-2142IT-128G	ES2486dc-2142IT-96G
Intel® Xeon® D-2142IT 8-core 1.90 GHz processor, up to 3.0 GHz	
64-bit x86	
-	
Yes	
Yes (AES-NI)	
-	
64 GB RDIMM DDR4 ECC (4 x 16 GB) per controller	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller
512 GB (8 x 64GB)	
8 x R-DIMM/LR-DIMM DDR4	
IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.	
24 x 2.5-inch	
SAS 12Gb/s, backward-compatible to SAS 6Gb/s	
Yes	
-	
Yes Read cache only	
3 for each controller (one for remote management)	
-	
-	
4 x 10GbE SFP+ for each controller	
-	
-	
2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)	
-	
2 per each controller	
-	
-	
2U Rackmount	
88.3 x 483 x 545.1	
27.41	
0 - 40 °C (32°F - 104°F)	
Redundant/ Hot Swap Power Vin:90~264VAC;700W	
579.59 Tested with drives fully populated.	
Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	
-	





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

## TS-h2490FU







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





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



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



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

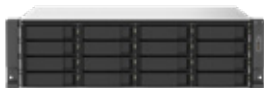





	TVS-h1688X	TS-h2483XU-RP
		
	TVS-h1688X-W1250-32G	TS-h2483XU-RP-E2236-128G
	Intel® Xeon® W-1250 6-core/12-thread processor, up to 4.7 GHz	Intel® Xeon® E-2236 6-core 3.4 GHz processor (burst up to 4.8 GHz)
	64-bit x86	64-bit x86
	Intel® UHD Graphics P630	-
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Yes	-
	32GB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



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



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

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

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

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



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


	TS-673A	TS-473A
		
Model	TS-673A-8G	TS-473A-8G
CPU	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	Optional via a PCIe adapter	Optional via a PCIe adapter
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	Optional via a PCIe adapter	Optional via a PCIe adapter
System Memory	8 GB SO-DIMM DDR4 (1 x 8 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)
Maximum Memory	64 GB (2 x 32 GB)	64 GB (2 x 32 GB)
Memory Slot	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
Drive Bay	6 x 3.5-inch SATA 6Gb/s, 3Gb/s	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.
M.2 Slot	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP](http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP](http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.
SSD Cache Acceleration Support	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	-
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2	2
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	Optional via a PCIe adapter
10 Gigabit Ethernet Port	Optional via a PCIe adapter	Optional via a PCIe adapter
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	-
USB 3.2 Gen 2 (10Gbps) Port	3 x Type-A USB 3.2 Gen 2 10Gbps 1 x Type-C USB 3.2 Gen 1 5Gbps	3 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps 1 x Type-C USB 3.2 Gen 1 5V/1A 5Gbps
HDMI Output	Optional via a PCIe adapter	Optional via a PCIe adapter
Form Factor	Tower	Tower
Dimensions (HxWxD)	188.2 x 264.3 x 280.8	188.2 x 199.3 x 280.8
Weight (Net)	5.78	5.03
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V AC, 50-60Hz, 3.5A	250W, 100-240V AC, 50-60Hz, 3.5A
Power Consumption: Operating Mode, Typical	45.898 Tested with drives fully populated.	29.792 Tested with drives fully populated.
Fan	System fan: 2 x 92mm CPU fan: 1 x 60mm	System fan: 1 x 120mm CPU fan: 1 x 60mm
Kensington Security Slot	Yes	-




# Réseau haut débit 25GbE



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



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



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





# Connectivité 10GbE : L'avenir, c'est maintenant!







	ES1686dc	ES1686dc
		
Model	ES1686dc-2142IT-128G	ES1686dc-2142IT-96G
CPU	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller
CPU Architecture	64-bit x86	64-bit x86
Graphic Processors	-	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes (AES-NI)
Hardware-accelerated Transcoding	-	-
System Memory	64 GB RDIMM DDR4 ECC (4 x 16 GB) per controller	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller
Maximum Memory	512 GB (8 x 64GB)	512 GB (8 x 64GB)
Memory Slot	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.	8 x R-DIMM/LR-DIMM DDR4 IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.
Drive Bay	16 x 3.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s	16 x 3.5-inch SAS 12Gb/s, backward-compatible to SAS 6Gb/s
Hot-swappable	Yes	Yes
M.2 slot	-	-
SSD Cache Acceleration Support	Yes Read cache only	Yes Read cache only
Gigabit Ethernet Port (RJ45)	3 for each controller (one for remote management)	3 for each controller (one for remote management)
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	-	-
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	-	-
10 Gigabit Ethernet Port	4 x 10GbE SFP+ for each controller	4 x 10GbE SFP+ for each controller
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)	2 Slot 1: PCIe Gen 3 x8 (CPU) Slot 2: PCIe Gen 3 x8 (CPU)
USB 2.0 port	-	-
USB 3.2 Gen 1 port	2 per each controller	2 per each controller
USB 3.2 Gen 2 (10Gbps) Port	-	-
HDMI Output	-	-
Form Factor	3U Rackmount	3U Rackmount
Dimensions (HxWxD)	132 x 483.05 x 630.62	132 x 483.05 x 630.62
Weight (Net)	25.83	25.83
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	Redundant/ Hot Swap Power Vin:90~264VAC;770W	Redundant/ Hot Swap Power Vin:90~264VAC;770W
Power Consumption: Operating Mode, Typical	500.87 Tested with drives fully populated.	500.87 Tested with drives fully populated.
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)
Kensington Security Slot	-	-



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



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







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



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



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

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



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



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

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



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





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



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



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

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



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



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

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



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





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


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



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

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



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



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

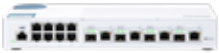

	TS-431XeU
	
	TS-431XeU-8G
	AnnapurnaLabs Alpine AL314 32-bit ARM® Cortex-A15 quad-core 1.7GHz processor
	32-bit ARM
	-
	Yes
	Yes
	-
	8 GB SODIMM DDR3 (1 x 8 GB)
	8 GB (1 x 8 GB)
	1 x SO-DIMM DDR3
	4 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes
	-
	Yes
	2
	-
	-
	1 x 10GbE SFP+
	-
	-
	-
	-
	4
	-
	-
	1U Rackmount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


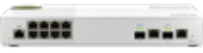
	QSW-M1208-8C	QSW-M1204-4C
		
Model	QSW-M1208-8C	QSW-M1204-4C
Management Type	Web Managed	Web Managed
Management Port	1 x 1GbE RJ45	1 x 1GbE RJ45
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption	70W	70W
Input Power Type	AC	AC
Input Voltage Range	100-240VAC,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







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


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

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

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

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

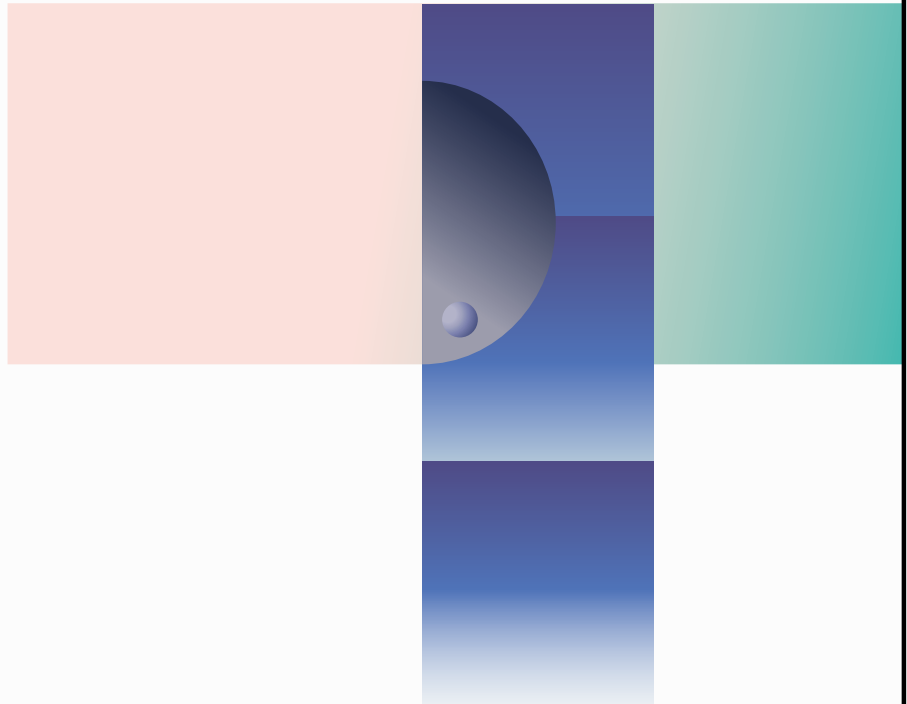
	QSW-IM1200-8C	QSW-308-1C
		
Model	QSW-IM1200-8C	QSW-308-1C
Management Type	Web Managed	Unmanaged
Management Port	1 x 1GbE RJ45	-
Power Supply Description	Adapter	Adapter
Max. Power Consumption	67W	36W
Input Power Type	DC	AC
Input Voltage Range	9V-54V	100-240VAC, 50/60 Hz
MAC Address Table	16K	16K
Total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



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











Le 2,5GbE n'est pas  
réservé aux bureaux,  
adoptez le chez vous







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



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

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



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

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

	TS-873A	TS-673A
		
	TS-873A-8G	TS-673A-8G
	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor
	64-bit x86	64-bit x86
	Optional via a PCIe adapter	Optional via a PCIe adapter
	Yes	Yes
	Yes (AES-NI)	Yes (AES-NI)
	Optional via a PCIe adapter	Optional via a PCIe adapter
	8 GB SO-DIMM DDR4 (1 x 8 GB)	8 GB SO-DIMM DDR4 (1 x 8 GB)
	64GB (2 x 32 GB)	64GB (2 x 32 GB)
	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.
	8 x 3.5-inch SATA 6Gb/s, 3Gb/s	6 x 3.5-inch SATA 6Gb/s, 3Gb/s
	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.
	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP])( <a href="http://shop.qnap.com/index.php?route=product/product&amp;product_id=168">http://shop.qnap.com/index.php?route=product/product&amp;product_id=168</a> ) or a third-party provider) on the M.2 SSD.	2 x M.2 2280 PCIe Gen3 x1 slots
	Yes	Yes
	-	-
	2	2
	Optional via a PCIe adapter	Optional via a PCIe adapter
	Optional via a PCIe adapter	Optional via a PCIe adapter
	-	-
	-	-
	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4
	-	-
	-	-
	3 x Type-A USB 3.2 Gen 2 10Gbps 1 x Type-C USB 3.2 Gen 1 5Gbps	3 x Type-A USB 3.2 Gen 2 10Gbps 1 x Type-C USB 3.2 Gen 1 5Gbps
	Optional via a PCIe adapter	Optional via a PCIe adapter
	Tower	Tower
	188.2 x 329.3 x 280.8	188.2 x 264.3 x 280.8
	6.76	5.78
	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
	250W, 100-240V AC, 50-60Hz, 3.5A	250W, 100-240V AC, 50-60Hz, 3.5A
	54.067 Tested with drives fully populated.	45.898 Tested with drives fully populated.
	System fan: 2 x 120mm	System fan: 2 x 92mm
	Yes	Yes

	TS-473A	TS-431P3
		
Model	TS-473A-8G	TS-431P3-4G
CPU	AMD Ryzen™ Embedded V1500B 4-core/8-thread 2.2 GHz processor	AnnapurnaLabs, an Amazon company Alpine AL314, 4-core, 1.7GHz
CPU Architecture	64-bit x86	32-bit ARM
Graphic Processors	Optional via a PCIe adapter	-
Floating Point Unit	Yes	Yes
Encryption Engine	Yes (AES-NI)	Yes
Hardware-accelerated Transcoding	Optional via a PCIe adapter	-
System Memory	8 GB SO-DIMM DDR4 (1 x 8 GB)	4GB SO-DIMM DDR3
Maximum Memory	64 GB (2 x 32 GB)	8GB DDR3
Memory Slot	2 x SO-DIMM DDR4 Support ECC memory For dual-DIMM configurations, you must use a pair of identical DDR4 modules.	1 x SO-DIMM DDR3
Drive Bay	4 x 3.5-inch SATA 6Gb/s, 3Gb/s	4x 3.5-inch SATA 6Gb/s, 3Gb/s
Hot-swappable	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.	Yes The following are not hot-swappable: M.2 SSDs, SSD cache drives, SSDs using PCIe expansion slots.
M.2 slot	2 x M.2 2280 PCIe Gen3 x1 slots The M.2 SSD is not included as standard. M.2 SSD operations can easily generate excessive heat. It is recommended to install a heatsink (from [QNAP](http://shop.qnap.com/index.php?route=product/product&product_id=168) or a third-party provider) on the M.2 SSD.	-
SSD Cache Acceleration Support	Yes	Yes
Gigabit Ethernet Port (RJ45)	-	1
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2	1
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via a PCIe adapter	-
10 Gigabit Ethernet Port	Optional via a PCIe adapter	-
25 Gigabit Ethernet Port	-	-
Thunderbolt Port	-	-
PCIe Slot	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4	2 Slot 1: PCIe Gen 3 x4 Slot 2: PCIe Gen 3 x4
USB 2.0 port	-	-
USB 3.2 Gen 1 port	-	3
USB 3.2 Gen 2 (10Gbps) Port	3 x Type-A USB 3.2 Gen 2 5V/1A 10Gbps 1 x Type-C USB 3.2 Gen 1 5V/1A 5Gbps	-
HDMI Output	Optional via a PCIe adapter	-
Form Factor	Tower	Tower
Dimensions (HxWxD)	188.2 x 199.3 x 280.8	169 x 160 x 219
Weight (Net)	5.03	2.01
Operating temperature	0 - 40 °C (32°F - 104°F)	0 - 40 °C (32°F - 104°F)
Power Supply Unit	250W, 100-240V AC, 50-60Hz, 3.5A	90W Adapter, 100-240V
Power Consumption: Operating Mode, Typical	29.792 Tested with drives fully populated.	26.7 Tested with drives fully populated.
Fan	System fan: 1 x 120mm CPU fan: 1 x 60mm	1 x 120mm, 12VDC
Kensington Security Slot	-	Yes







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

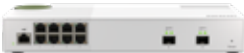

## TS-231P3



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

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

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

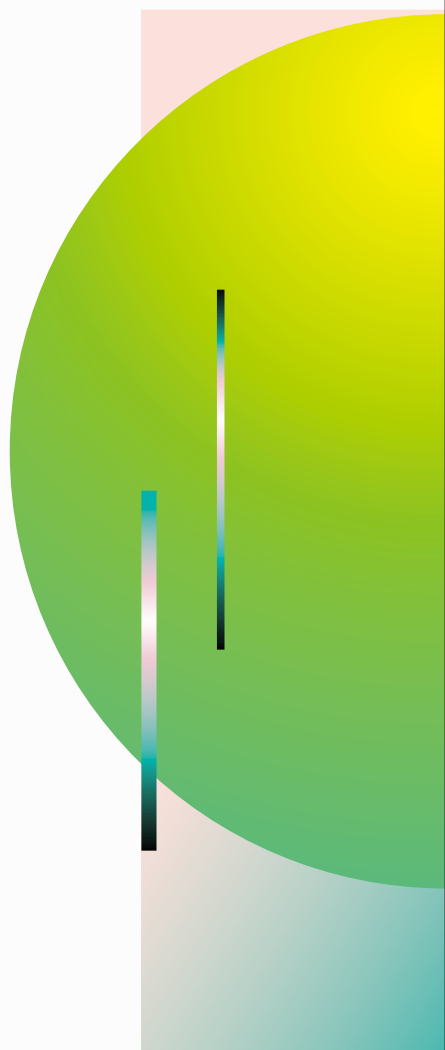
	QSW-M2108-2S	QSW-M2108R-2C
		
	QSW-M2108-2S	QSW-M2108R-2C
	Web Managed	Web Managed
	-	-
	Adapter	Internal Power Supply Unit
	12.17 W	60W
	DC	AC
	12V	100-240VAC, 50/60 Hz
	16K	16K
	40Gbps	40Gbps
	80Gbps	80Gbps
	Web	Web
	RJ45	RJ45
	Yes	Yes
	PWM double ball bearing fan x 1	PWM double ball bearing fan x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



## QSW-M2116P-2T2S



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

Des performances  
révolutionnaires  
et une connectivité  
exceptionnelle  
avec les NAS Thunderbolt



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



## TVS-472XTT



TVS-472XT-i5-4G

TVS-472XT-i3-4G

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

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

64-bit x86

64-bit x86

Intel® UHD Graphics 630

Intel® UHD Graphics 630

Yes

Yes

Yes (AES-NI)

Yes (AES-NI)

Yes

Yes

4 GB SODIMM DDR4 (1 x 4 GB)

4 GB SODIMM DDR4 (1 x 4 GB)

64 GB ( 2 x 32 GB)

64 GB ( 2 x 32 GB)

2 x SO-DIMM DDR4

2 x SO-DIMM DDR4

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

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

Yes

Yes

2 x M.2 2280 PCIe Gen3 x2 slots

2 x M.2 2280 PCIe Gen3 x2 slots

Yes

Yes

2

2

-

-

-

-

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

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

-

-

2 (Thunderbolt™ 3)

2 (Thunderbolt™ 3)

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

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

-

-

1

1

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

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

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

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

Tower

Tower

188.2 x 199.3 x 279.6

188.2 x 199.3 x 279.6

5.4

5.4

0 - 40 °C (32°F - 104°F)

0 - 40 °C (32°F - 104°F)

250W, 100-240V

250W, 100-240V

37.32  
Tested fully populated with WD10EFRX hard drives."



37.32  
Tested fully populated with WD10EFRX hard drives.

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

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

Yes

Yes

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

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



## TS-453BT3







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

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cloud personnel  
et accédez-y depuis  
partout



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

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

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



## TS-251D



TS-251D-4G

TS-251D-2G

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

64-bit x86

Intel® HD Graphics 600

Yes

Yes (AES-NI)

Yes

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

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

8 GB (2 x 4GB)

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

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

Yes

Optional via a QM2 PCIe adapter

Yes

1  
Expandable with an optional PCIe adapter

-

Expandable with an optional PCIe adapter

Expandable with an optional PCIe adapter

-

-

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

3

2

Optional via a PCIe expansion card

1, HDMI 2.0

Tower

168 x 105 x 226

1.48



0 - 40 °C (32°F - 104°F)



External Power Adapter, 65W, 100-240V

15.25  
Tested with drives fully populated.

1 x 70mm

Yes

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

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

## TS-251+



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

## TS-451+





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







Solution intelligente de  
surveillance IP et de  
sauvegarde à distance de  
nouvelle génération







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







	QGD-1602P	QGD-1600P
		
	QGD-1602P-C3758-16G	QGD-1600P-4G
	Web Managed	Web Managed
	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)
	2	1
	-	2
	2 x 5GbE ; 2 x 1GbE	1 x 1GbE
	Optional via PCIe adapter	Optional via PCIe adapter
	-	1
	Internal Power Supply Unit	Internal Power Supply Unit
	500W	418W
	AC	AC
	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
	32K	8K
	48Gbps	16Gbps
	96Gbps	32Gbps
	Web	Web
	-	-
	-	Yes
	System: 3 x 4 cm (12V DC)	System: 2 x 4 cm (12V DC)
	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR IEEE 802.3z 1000Base-X IEEE 802.3x Full-duplex flow control IEEE 802.3af/at/bt Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3z 1000Base-X IEEE 802.3x Full-duplex flow control IEEE 802.3af/at/bt Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization
	18	16
	"2 10G/1G"	-
	-	-
	8	-
	8	14
	-	2
	16	16
	Ports 1-16	Ports 1-16
	Ports 1-16	Ports 1-16
	-	Ports 1-4
	Ports 1-4	-
	Ports 1-4 (90W), Ports 5-16 (30W)	Ports 1-4 (60W), Ports 5-16 (30W)
	370W	360W
	Rackmount	Rackmount
	44.2 x 435.2 x 327.7	47.2 x 436.2 x 326.2
	4.37	4.41

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

	QGD-1602P	QGD-1600P
		
	QGD-1602P-C3758-16G	QGD-1600P-4G
	Web Managed	Web Managed
	Slot 1: PCIe Gen3 (x4 slot, x2 speed) Slot 2: PCIe Gen3 (x4 slot, x2 speed)	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)
	2	1
	-	2
	2 x 5GbE ; 2 x 1GbE	1 x 1GbE
	Optional via PCIe adapter	Optional via PCIe adapter
	-	1
	Internal Power Supply Unit	Internal Power Supply Unit
	500W	418W
	AC	AC
	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
	32K	8K
	48Gbps	16Gbps
	96Gbps	32Gbps
	Web	Web
	-	-
	-	Yes
	System: 3 x 4 cm (12V DC)	System: 2 x 4 cm (12V DC)
	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR IEEE 802.3z 1000Base-X IEEE 802.3x Full-duplex flow control IEEE 802.3af/at/bt Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3z 1000Base-X IEEE 802.3x Full-duplex flow control IEEE 802.3af/at/bt Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization
	18	16
	2 10G/1G	-
	-	-
	8	-
	8	14
	-	2
	16	16
	Ports 1-16	Ports 1-16
	Ports 1-16	Ports 1-16
	-	Ports 1-4
	Ports 1-4	-
	Ports 1-4 (90W), Ports 5-16 (30W)	Ports 1-4 (60W), Ports 5-16 (30W)
	370W	360W
	Rackmount	Rackmount
	44.2 x 435.2 x 327.7	47.2 x 436.2 x 326.2
	4.37	4.41

	QGD-1600P	QGD-3014-16PT
		
Model	QGD-1600P-8G	QGD-3014-16PT-8G
Management Type	Web Managed	Web Managed
PCIe Slot	Slot 1: PCIe Gen2 (x2) Slot 2: PCIe Gen2 (x2)	-
USB 3.2 Gen 1 port	1	3
USB 2.0 port	2	-
Management Port	1 x 1GbE	2 x 2.5GbE
USB 3.2 Gen 2 (10Gbps) Port	Optional via PCIe adapter	-
HDMI Output	1	2
Power Supply Description	Internal Power Supply Unit	Internal Power Supply Unit
Max. Power Consumption	418W	250W
Input Power Type	AC	AC
Input Voltage Range	100-240VAC, 50/60 Hz	100-240VAC, 50/60 Hz
MAC Address Table	8K	8K
Total Non-Blocking Throughput	16Gbps	16Gbps
Switching Capacity	32Gbps	32Gbps
Management Interface	Web	Web
Console	-	-
Energy Efficient Ethernet (IEEE 802.3az complaint)	Yes	Yes
Fan	System: 2 x 4 cm (12V DC)	System: 12 x 12 cm (12V DC)
Supported Standards	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3z 1000Base-X IEEE 802.3x Full-duplex flow control IEEE 802.3af/at/bt Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization	IEEE 802.3u 100Tx Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3z 1000Base-X IEEE 802.3x Full-duplex flow control IEEE 802.3af/at Power-over-Ethernet (PoE) IEEE 802.1q Virtual LANs (VLAN) IEEE 802.1p QoS Protocol for Traffic Prioritization IEEE 802.3az Energy Efficient Ethernet IEEE 802.3af/at Power-over-Ethernet (PoE)
Number of Ports	16	16
10GbE SFP+	-	-
10GbE BASE-T (RJ45)	-	-
2.5GbE (RJ45)	-	-
1GbE (RJ45)	14	14
1GbE SFP/RJ45 Combo Ports	2	2
Total PoE Ports	16	16
PoE PSE (802.3af, 15.4W)	Ports 1-16	Ports 1-16
PoE+ PSE (802.3at, 30W)	Ports 1-16	Ports 1-16
PoE++ PSE (802.3bt, 60W)	Ports 1-4	-
PoE++ PSE (802.3bt, 90W)	-	-
PoE Power Output	Ports 1-4 (60W), Ports 5-16 (30W)	Ports 1-16 (Max 30W)
Total PoE Power Budget	360W	140W
Form Factor	Rackmount	Desktop
Dimensions (HxWxD)	47.2 x 436.2 x 326.2	130 x 295 x 224.8
Weight (Net)	4.41	4.08

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

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

## QVP-85A

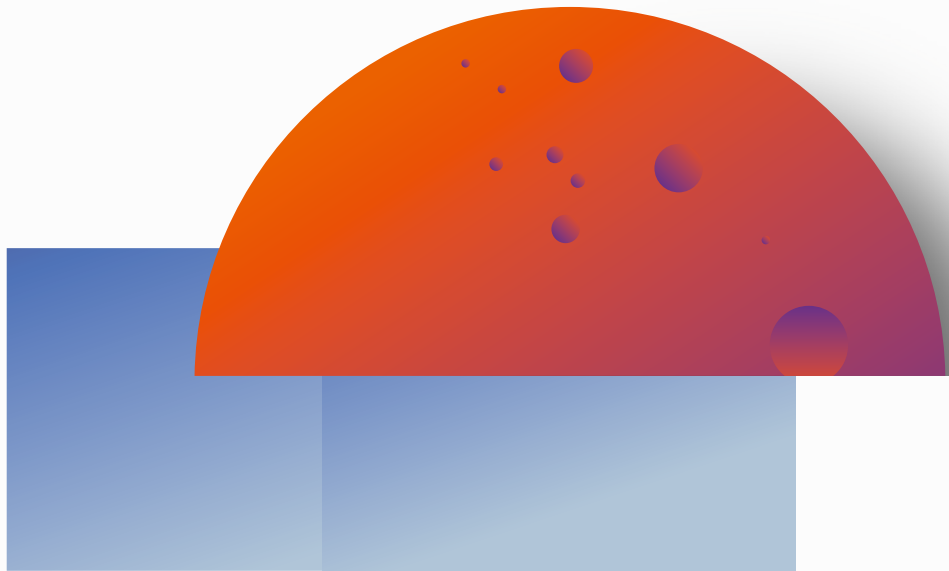




	QVP-85A
	QVR Pro OS (QVP)
	Intel® Core™ i5-8400T 6-core 1.7 GHz Processor, Max turbo to 3.3 GHz
	64-bit x86
	Intel® UHD Graphics 630
	Yes
	16 GB SODIMM DDR4 (2 x 8 GB)
	32 GB ( 2 x 16 GB)
	2 x SO-DIMM DDR4
	8 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without HDD. For the HDD compatibility list,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






# Solution QuWAN SD-WAN pour une infrastructure informatique résiliente

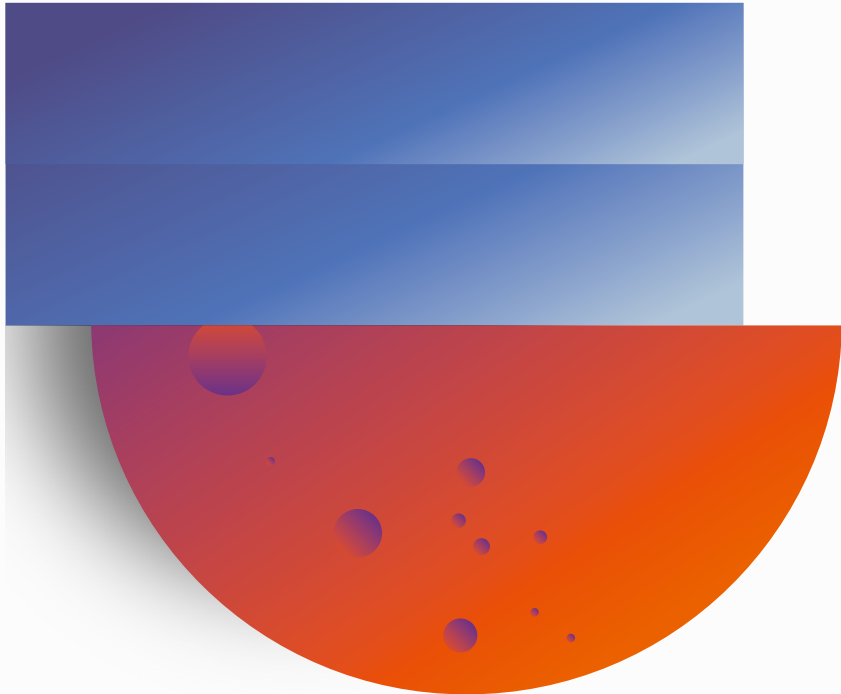




	QHora-301W	QMiroPlus-201W
		
Model	QHora-301W	QMiroPlus-201W
Number of Ethernet Ports	6	5
10GbE BASE-T (RJ45)	2 x 10GBASE-T (10G/5G/2.5G/1G/100M)	-
2.5GbE Host Port(RJ45)	-	1
1GbE (RJ45)	4	4
CPU	Qualcomm IPQ8072A Hawkeye 2 Quad-core 2.2 GHz 64-bit CPU	Router: Qualcomm IPQ4019, Quad 4cores ARM Cortex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

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

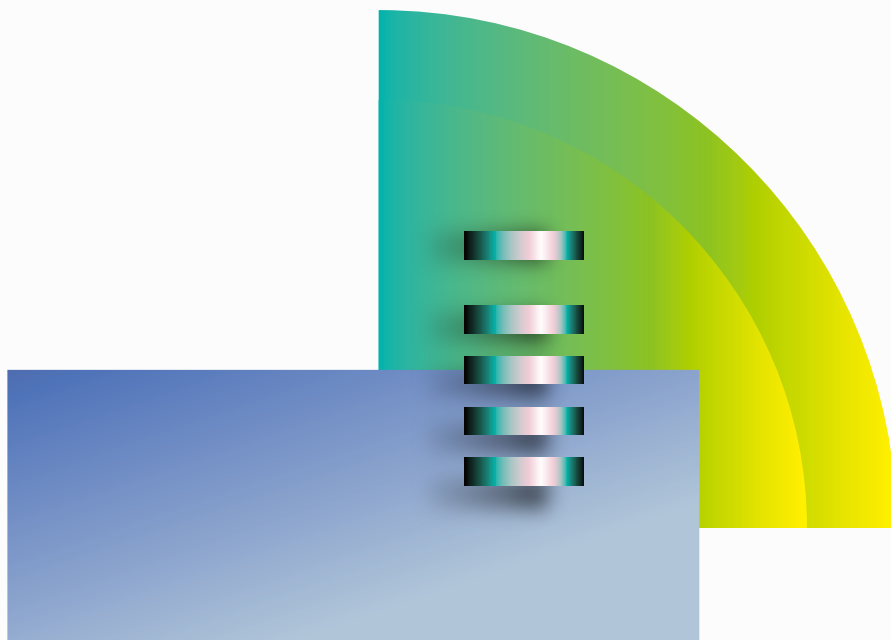


Profitez d'une expérience  
de Wi-Fi maillé à haute  
portée



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

## Extension de stockage flexible et rentable





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



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

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

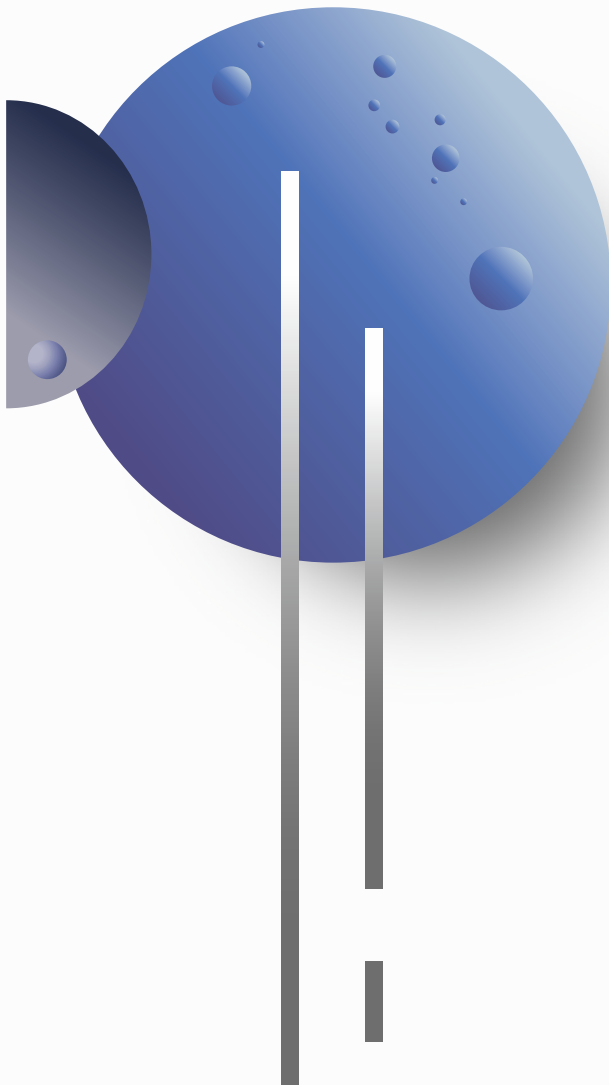
	TL-R1200S-RP	TL-R1220Sep-RP
		
	TL-R1200S-RP	TL-R1220Sep-RP
	-	-
	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [ <a href="https://www.qnap.com/compatibility/">https://www.qnap.com/compatibility/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

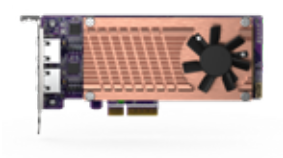
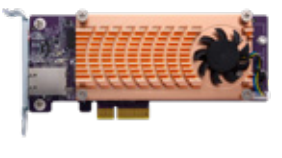
	TL-R1620Sep-RP	TL-R1620Sdc
		
Model	TL-R1620Sep-RP	TL-R1620Sdc
CPU	-	-
Drive Bay	16 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	16 x 3.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped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

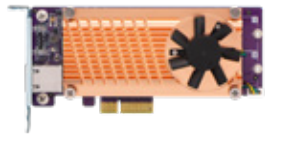
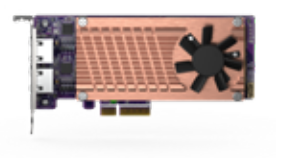
	TL-R2420Sdc	TR-002
		
	TL-R2420Sdc	TR-002
	-	Micro processor with hardware RAID
	24 x 2.5-inch SAS 12Gb/s, SAS/SATA 6Gb/s The system is shipped without HDD. For the HDD compatibility list, please visit [https://www.qnap.com/compatibility/]	2 x 3.5-inch SATA 6Gb/s, 3Gb/s The system is shipped without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

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

Des accessoires polyvalents  
et riches en fonctionnalités  
pour améliorer les  
performances  
de votre système


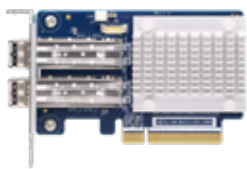


	QM2-2P2G2T	QM2-2P10G1TB
		
Model	QM2-2P2G2T	QM2-2P10G1TB
description	Dual M.2 2280 SATA SSD & dual-port 2.5GbE expansion card	Dual M.2 2280 PCIe NVMe SSD & single-port 10GbE expansion card

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

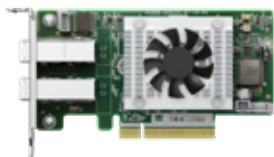
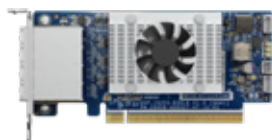
	QDA-SA3	QDA-A2AR
		
Model	QDA-SA3	QDA-A2AR
description	2.5-inch 6Gbps SAS to SATA drive adapter (Designed for dual-controller all-flash ES2486dc NAS)	Use two 2.5-inch SATA drives in a single 3.5-inch SATA drive bay with RAID support for PC and NAS


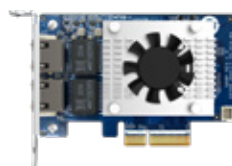
	QDA-U2MP	QXP-400eS-A1164
		
Model	QDA-U2MP	QXP-400eS-A1164
description	Use two M.2 PCIe NVMe SSD in a U.2 PCIe NVMe SSD drive bay for PC and NAS	Quad-port SATA expansion card (1 x SFF-8088)

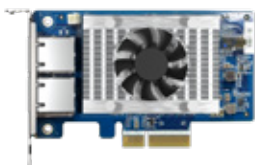

	QXP-10G2U3A	QXP-16G2FC
		
Model	QXP-10G2U3A	QXP-16G2FC
description	USB 3.2 Gen 2 dual-port PCIe expansion card	Dual-port 16Gb Enhanced Gen 5 Fibre Channel expansion card with SFP+ transceivers







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

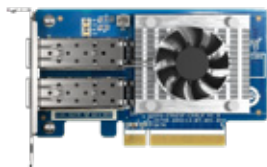
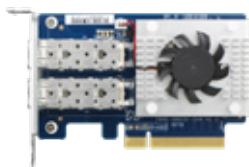
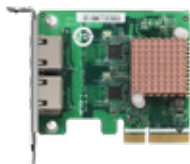
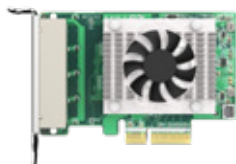



	QXP-820S-B3408	QXP-1620S-B3616W
		
Model	QXP-820S-B3408	QXP-1620S-B3616W
description	Dual-port External SAS 12Gb/s storage expansion card	Quad-port External SAS 12Gb/s storage expansion card

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

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

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

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

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

\*All specifications are subject to change without notice



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