

QNAP

2015

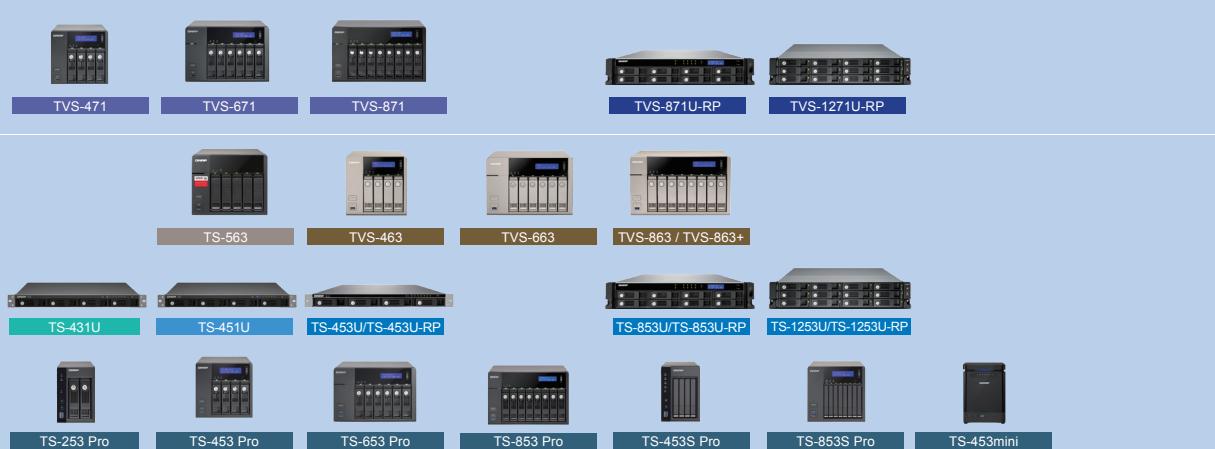
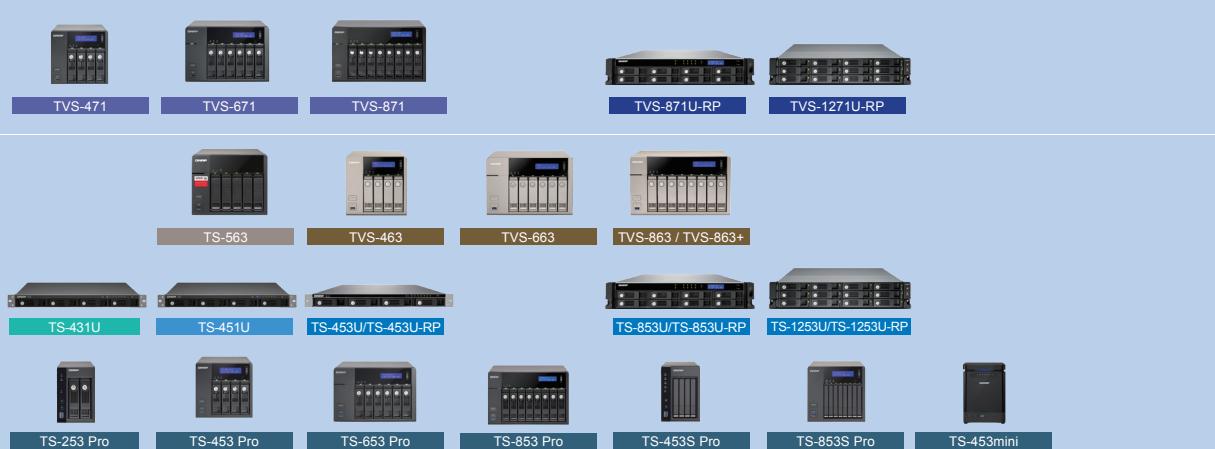
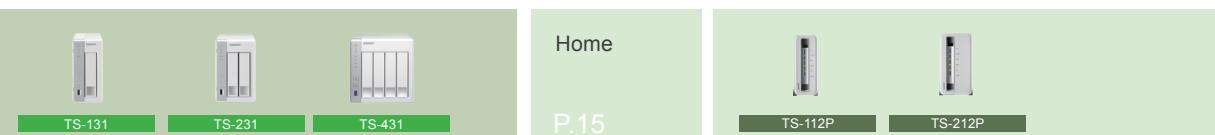
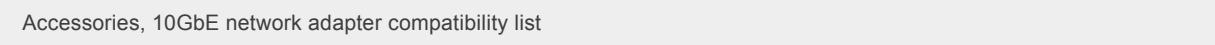
PRODUCT SELECTION GUIDE



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QNAP Product Lineup

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See how **QNAP evolves** into the **New Era** of NAS



QNAP NAS

WIN



Contender's NAS

PK

**HDMI Output**

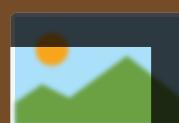
- Quickly [Set Up](#) the NAS.
- Use [OvPC](#) Technology to use the NAS as a PC.
- Use [XBMC](#) to watch videos. Monitor [Surveillance](#) live feeds.

**No HDMI Output**

NONE of the left

**4K UHD Support**

Enjoy 4K UHD videos & 7.1 channel audio with XBMC and [Run](#) applications with BIG workspace.

**No 4K UHD Support**

Limited video quality and small workspace.

**Smooth video conversion**

Transcode HD videos in real-time or offline to universal formats with hardware-accelerated engine.

**Lengthy video conversion**

Slow & unsmooth video playback with limited file format support.

**Virtualization platform**

Can run as NAS and virtualization platform to centrally create and run Windows, Linux, UNIX and Android-based VMs to enhance IT efficiency.

**No Virtualization platform**

Can only run as NAS

Enterprise

High-performance unified & tiered storage solutions that offer ideal capacity for big data, 10GbE compatibility for next-generation networks, and a range of virtualization solutions to empower large-scale enterprises.



Create efficient unified and tiered storage

QNAP's SAS-enabled Turbo NAS models feature class-leading hardware specifications, and allow tiered storage architecture to optimize storage utilization. You can flexibly arrange the storage system with SAS HDDs/SSDs for performance-intensive applications and SATA HDDs for bulk data storage. Configuring different tiers to hard drives on a single NAS according to different data usage delivers the best unified and tiered storage solutions for businesses.



Optimize resources with maximized IT performance

QNAP provides powerful, reliable and scalable NAS solutions to fulfill data backup, cross-platform file sharing, virtualization applications, and more. SSD caching support improves I/O performance and is perfect for improving the workflow of IOPS-demanding applications such as virtualization. With the IT Management Station, you will also discover just how easy it can be to centrally manage multi-OS & multi-site IT assets, resources and applications.



Scale-up solution offers flexibility

Turbo NAS is a robust network storage center that delivers ultra-high performance and reliability. Supporting 10GbE networks, VMware®, Citrix® and Microsoft® virtualization solutions, flexible storage expansion, and high-level data protection features such as AES-256 volume-based encryption and access encryption, Turbo NAS is a trustworthy solution for storing big data and for optimizing business efficiency.

QNAP Expansion Enclosures feature high density, high efficiency and highly scalable solutions for expanding the total capacity of a Turbo NAS to adapt to the growth of business data. Businesses can optimize their investment by only purchasing the storage capacity needed at initial setup and then expand their storage as needed to fit future requirements.





■ Middle-end

SS-ECx79U-SAS :

SS-EC2479U-SAS-PR, SS-EC1879U-SAS-PR,
SS-EC1279U-SAS-PR

TS-ECx80 series :

TS-EC2480U-RP, TS-EC1680U-RP, TS-EC1280U-RP,
TS-EC880U-RP

TVS-ECx80+ series :

TVS-EC1080+, TVS-EC1080, TVS-EC880

■ Storage expansion unit

REXP series :

REXP-1600U-RP, REXP-1200U-RP, REXP-1000 Pro

SMB

Increase business efficiency with simplified management, cross-platform file sharing, comprehensive backup solutions, centralized account management, and RAID protections.

Flexible, diverse, and increased collaboration

A successful business relies heavily on smooth information sharing and effective knowledge management within an organization. The Turbo NAS is designed for high performance cross-platform file sharing and achieves efficient client-to-client and device-to-device file sharing. Supporting SMB/CIFS, AFP, and NFS, the NAS enables seamless file sharing between computers with different operating systems without the worry of compatibility issues arising.

Secure business data & simplify account management

With RAID protection and a range of security settings, the NAS offers a secure location to store mission-critical business data. The all-in-one NAS also supports folder access controls, user home folders, Windows ACL, Windows AD and LDAP directory services for centralized account management and authentication for network access.





Back up and retrieve data on demand

The NAS comes with a large storage capacity and excellent transfer speeds that make it ideal as an inclusive backup center. The data stored on the NAS can also be easily & conveniently backed up to external storage devices, remote servers, and various third-party cloud backup services for added backup redundancy.



Flexibly expand storage

Plug & use QNAP Expansion Enclosures to seamlessly expand the total storage space of your Turbo NAS on demand, or alternatively use the expansion enclosure as a budget-friendly external storage to back up the entire contents of the connected Turbo NAS.



Industrial NAS for harsh environment

Built with high-quality aluminum materials for maximum heat dissipation, the 4-bay IS-453S NAS is designed to withstand temperatures between -40°C and 50°C (-40°F to 120°F). With a rugged steel body and no moving parts, the fanless IS-453S is designed to withstand dust, rust, vibration and impact for reliable and energy-saving operations within even the most extreme environments.

■ High-end

TVS-x71U & TVS-x71 Series :

TVS-1271U-RP, TVS-871U-RP, TVS-871, TVS-671, TVS-471

■ Middle-end

TVS-x63 Series :

TVS-863+, TVS-863, TVS-663, TVS-463

TS-x53U & TS-x53 Series :

TS-1253U/TS-1253U-RP, TS-853U/TS-853U-RP, TS-453U/TS-453U-RP, TS-853 Pro, TS-653 Pro, TS-453 Pro, TS-253 Pro, TS-853S Pro, TS-453S Pro, TS-453mini

TS-563

■ Storage expansion unit

UX series :

UX-1200U-RP, UX-800U-RP, UX-800P, UX-500P

HOME & SOHO

Ease of use, effortless file synchronization and management, mobile sharing, and rich home multimedia entertainment.

Sync and manage files effortlessly

In the modern digital home, families have tons of photos, videos, and music files stored in different rooms and on different devices. The Turbo NAS offers a collective space for every member of the family to store files and allows convenient file access and synchronization across computers, tablets and smartphones. With the intuitive QTS operating system, you will quickly discover how easy it is to use the Turbo NAS and how efficiently you can work with the multi-window, multi-tasking design.

Transcode Full HD videos on-the-fly or offline

With the popularity of high-definition smartphones and digital cameras, video resolutions are getting higher. A higher resolution means larger file sizes and more bandwidth needed to stream it. QNAP's unique transcoding technology creates videos with optimal resolutions for sharing & watching in order to save bandwidth whilst retaining the unaltered original video on the Turbo NAS – allowing for the best viewing experience on any device.

*Transcoding is supported by specific models.

Maximized multimedia entertainment in modern homes

The Turbo NAS offers rich multimedia applications and acts as a home multimedia hub. You can also browse photos or play music and videos on DLNA, AirPlay, and Chromecast compatible devices, or enjoy your video collection on a HDTV with HD Station via HDMI. With a Turbo NAS in your living room, it's never been easier to build a personal home theater.





Access and share files with mobile devices

Carry terabytes of photos, music, videos and documents on the go! Easily manage, access, and share files stored on your NAS with the iOS and Android mobile apps Qfile, Qmusic and Qvideo while conveniently managing your download tasks with Qget. A modern mobile life is just that easy.



■ High-end Workgroup / SOHO / Home

TS-x51 series :

TS-851, TS-651, TS-451, TS-251, TS-251C

Silent NAS :

HS-251

■ Middle-end Work Group / SOHO / Home

TS-x31+ series :

TS-431+, TS-231+

TS-431U

TS-x31 series :

TS-431, TS-231, TS-131

■ Entry-level SOHO / Home

TS-x12P series :

TS-212P, TS-112P

■ Mobile NAS

Mobile NAS :

QG-103N

■ Storage expansion unit

UX series :

UX-800P, UX-500P

Hardware specification

SS-ECx79U-SAS-RP Series			TS-ECx79U-SAS-RP Series		
Turbo NAS Model	SS-EC2479U-SAS-RP	SS-EC1879U-SAS-RP	SS-EC1279U-SAS-RP	TS-EC1679U-SAS-RP	TS-EC1279U-SAS-RP
					
CPU	Intel® Xeon® E3-1245 v2 Quad-Core 3.4 GHz			Intel® Xeon® E3-1245 v2 Quad-Core 3.4 GHz	
Memory	8GB DDR3 ECC (Up to 32GB)			8GB DDR3 ECC (Up to 32GB)	
HDD Size*	24 x 2.5	18 x 2.5	12 x 2.5	16 x 3.5 / 2.5	12 x 3.5 / 2.5
HDD Interface	SAS/SATA 6Gb/s, 3Gb/s			SAS/SATA 6Gb/s, 3Gb/s	
HDD Hot Swappable	✓			✓	
Gigabit LAN	4 (expandable to 8 x Gigabit LAN or 4 x 10 Gigabit + 4 x Gigabit LAN)			4 (expandable to 8 x Gigabit LAN or 4 x 10 Gigabit + 4 x Gigabit LAN)	
PCI-E Slot	2			2	
USB 3.0 / USB 2.0	2 / 4			2 / 4	
eSATA	---			---	
HDMI	1			1	
Dimensions (HxWxD) mm	130 x 442.4 x 528.3	130 x 442.4 x 528.3	88 x 439 x 520	130 x 442.4 x 528.3	88 x 439 x 520
Weight (Net/Gross) kg	10.8 / 22.9	10.8 / 22.6	10.8 / 22.0	18.3 / 25.11	16.04 / 22.31
Fan	3 (6cm)			3 (6cm)	
Power Consumption (W)	HDD Standby: 138.7 In Operation: 270	HDD Standby: 126.4 In Operation: 206	HDD Standby: 118.1 In Operation: 157	In Operation: 368	In Operation: 296
Power Supply	Input: 100-240V AC,50-60Hz Output: 600W			Input: 100-240V AC,50-60Hz Output: 600W	
Max. # of User Accounts	4096			4096	
Max. # of User Groups	512			512	
Max. # Shared Folders	512			512	
Max. Concurrent Connections (CIFS)	1200			1200	
Max. # of IP Cameras	Default : 4 Max : 72 (optional)			Default: 4, Max.: 72 (optional license purchase)	
QNAP Expansion Enclosure	REXP-1600U-RP / REXP-1200U-RP			REXP-1600U-RP / REXP-1200U-RP	

TS-ECx80U-RP Series				TVS-ECx80 Series				
TS-EC2480U-RP	TS-EC1680U-RP	TS-EC1280U-RP	TS-EC880U-RP	TVS-EC1080+	TVS-EC1080	TVS-EC880		
								
Intel® Xeon® E3 Quad-Core 3.4 GHz				Intel® Xeon® E3 Quad-Core 3.4 GHz	Intel® Xeon® E3 Quad-Core 3.4 GHz	Intel® Core™ i3 Dual-Core 3.5 GHz		
4GB DDR3 ECC (Max 32GB)				32 GB	16 GB / 8 GB (Max 32GB)	8GB (Max 32GB)		
24 x 3.5 / 2.5	16 x 3.5 / 2.5	12 x 3.5 / 2.5	8 x 3.5 / 2.5	10 x 3.5 / 2.5	10 x 3.5 / 2.5	8 x 3.5 / 2.5		
SATA 6Gb/s, 3Gb/s				SATA 6Gb/s, 3Gb/s				
✓				✓	✓	✓		
4				4 / 2 x 10GbE	4			
2				1	1	1		
4 / 4				3 / 6	3 / 6	3 / 6		
---				2	2	2		
1				1	1	1		
176 x 442 x 530	130 x 442 x 530	88 x 442.5 x 530.5	88 x 442.5 x 530.5	217.5 x 327 x 321.2				
18.3 / 24.18	23.08 / 28.56	14.18 / 21.41	14.39 / 20.54	12.52 / 19.75	12.52 / 19.75	12.52 / 19.75		
4 (8cm)		4 (6cm)	4 (6cm)	2 (12cm)	2 (12cm)	2 (12cm)		
HDD Standby: 129.43 In Operation : 263.81	HDD Standby: 82.84 In Operation : 166.58	HDD Standby: 80.41 In Operation : 166.58	HDD Standby: 73.38 In Operation : 133.88	HDD Standby : 44.2 In Operation : 130	HDD Standby : 44.2 In Operation : 130	HDD Standby : 44 In Operation : 122		
ATX 650W x 2 200-240V		ATX 400W x 2 200-240V		ATX 350W 100-240V	ATX 350W 100-240V	ATX 350W 100-240V		
4096				4096	4096	4096		
512				512	512	512		
512				512	512	512		
1500				1500	1500	1500		
Default : 8 Max : 80 (optional)				Default : 2 Max : 80 (optional)				
REXP-1600U-RP / REXP-1200U-RP (Max : 8)				REXP-1000 Pro (Max : 4)				

All specifications are subject to change without notice

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

Hardware specification

TVS-x71U Series

Turbo NAS Model	TVS-1271U-RP				TVS-871U-RP				
									
CPU	Intel® Core™ i7 Quad-Core 3.2 GHz	Intel® Core™ i5 Quad-Core 3.0 GHz	Intel® Core™ i3 Dual-Core 3.5 GHz	Intel® Pentium® Dual-Core 3.1 GHz	Intel® Core™ i5 Quad-Core 3.0 GHz	Intel® Core™ i3 Dual-Core 3.5 GHz	Intel® Pentium® Dual-Core 3.1 GHz		
Memory	32GB	16GB (Max 32GB)	8GB (Max 32GB)	4GB (Max 32GB)	8GB (Max 32GB)	4GB (Max 32GB)			
HDD Size *	12 x 3.5 / 2.5				8 x 3.5 / 2.5				
HDD Interface	SATA 6Gb/s, 3Gb/s				SATA 6Gb/s, 3Gb/s				
HDD Hot Swappable	✓				✓				
Gigabit LAN	4				4				
PCI-E Slot	2				2				
USB 3.0 / USB 2.0	4 / 4				4 / 4				
eSATA	---				---				
HDMI	1				1				
Dimensions (HxWxD) mm	89 x 482 x 534				89 x 482 x 534				
Weight (Net/Gross) kg	12.14 / 15.84				11.74 / 15.34				
Fan	3 (7cm)				3 (7cm)				
Power Consumption (W)	HDD Standby: 89.82 In Operation : 176.42	HDD Standby: 88.91 In Operation : 174.64	HDD Standby: 87.89 In Operation : 176.27	HDD Standby: 88.88 In Operation : 173.38	HDD Standby: 80.94 In Operation : 131.44	HDD Standby: 69.35 In Operation : 128.72	HDD Standby: 70.87 In Operation : 131.96		
Power Supply	ATX 500W x 2 100-240V				ATX 250W x 2 100-240V				
Max. # of User Accounts	4096				4096				
Max. # of User Groups	512				512				
Max. # Shared Folders	512				512				
Max. Concurrent Connections (CIFS)	1500				1500				
Max. # of IP Cameras	Default : 4 Max : 72 (optional)				Default : 4 Max : 72 (optional)				
QNAP Expansion Enclosure	REXP-1200U-RP / REXP-1600U-RP (Max : 8)				REXP-1200U-RP REXP-1600U-RP (Max : 8)				

TVS-x71 Series

TVS-871



TVS-671



TVS-471



Intel® Core™ i7 Quad-Core 3.2 GHz	Intel® Core™ i5 Quad-Core 3.0 GHz	Intel® Core™ i3 Dual-Core 3.5 GHz	Intel® Pentium® Dual-Core 3.1 GHz	Intel® Core™ i5 Quad-Core 3.0 GHz	Intel® Core™ i3 Dual-Core 3.5 GHz	Intel® Pentium® Dual-Core 3.1 GHz	Intel® Core™ i3 Dual-Core 3.5 GHz	Intel® Pentium® Dual-Core 3.1 GHz
16 GB	8GB (Max 16GB)	4GB (Max 16GB)		8GB (Max 16GB)	4GB (Max 16GB)		4GB (Max 16GB)	
	8 x 3.5 / 2.5			6 x 3.5 / 2.5			4 x 3.5 / 2.5	
	SATA 6Gb/s, 3Gb/s			SATA 6Gb/s, 3Gb/s			SATA 6Gb/s, 3Gb/s	
	✓			✓			✓	
	4			4			4	
	2			2			2	
	3 / 2			3 / 2			3 / 2	
	---			---			---	
	1			1			1	
	185.2 x 298.2 x 235.4			175 x 257 x 235			177 x 180 x 235	
	7.83 / 8.9			6.18 / 6.9			4.56 / 5.7	
	2 (12cm)			2 (9cm)			1 (9cm)	
HDD Standby : 45.37 In Operation : 82.51	HDD Standby : 45.43 In Operation : 82.06	HDD Standby : 45.48 In Operation : 83.81	HDD Standby : 45.1 In Operation : 82.59	HDD Standby : 36.7 In Operation : 62.18	HDD Standby : 38.72 In Operation : 66.30	HDD Standby : 36.32 In Operation : 62.25	HDD Standby : 28.19 In Operation : 50.52	HDD Standby : 28.39 In Operation : 49.38
ATX 350W 100-240V	ATX 250W 100-240V	ATX 250W 100-240V	ATX 350W 100-240V	ATX 250W 100-240V	ATX 250W 100-240V	ATX 250W 100-240V	ATX 250W 100-240V	ATX 250W 100-240V
	4096			4096			4096	
	512			512			512	
	512			512			512	
	1500			1500			1500	
	Default : 4 Max : 72 (optional)			Default : 4 Max : 72 (optional)			Default : 4 Max : 72 (optional)	
	N/A			N/A			N/A	

All specifications are subject to change without notice

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

Hardware specification

	TVS-x63 Series				TS-563	TS-x53U Series						
Turbo NAS Model	TVS-863+	TVS-863	TVS-663	TVS-463	TS-563	TS-1253U	TS-1253U-RP	TS-853U	TS-853U-RP			
												
CPU												
CPU	AMD G-Series Quad-Core 2.4 GHz				AMD G-Series Quad-Core 2.0 GHz	Intel® Celeron® Quad-Core 2.0 GHz (up to 2.41 GHz)		Intel® Celeron® Quad-Core 2.0 GHz (up to 2.41 GHz)				
Memory	8GB / 16 GB (Max 16GB)	4GB / 8 GB (Max 16GB)			2GB / 8 GB (Max 16GB)	4GB DDR3L (Max 8GB)		4GB DDR3L (Max 8GB)				
HDD Size *	8 x 3.5 / 2.5	8 x 3.5 / 2.5	6 x 3.5 / 2.5	4 x 3.5 / 2.5	5 x 3.5 / 2.5	12 x 3.5 / 2.5		8 x 3.5 / 2.5				
HDD Type	SATA 6Gb/s, 3Gb/s					SATA 6Gb/s, 3Gb/s		SATA 6Gb/s, 3Gb/s				
HDD Hot Swappable	✓				✓	✓		✓				
Gigabit LAN	2 x GbE + 1 x 10GbE ports	2			2	4		4				
PCI-E Slot	1 (10GbE NIC)	1			1	---		---				
USB 3.0 / USB 2.0	5 / 0				5 / 0	4 / 0		4 / 0				
eSATA	---				---	---		---				
HDMI	2 (Mirrored and extension modes)				---	1		1				
Dimensions (HxWxD) mm	185.2 x 298.2 x 235.4		185 x 260 x 235	177 x 180 x 235	185 x 210.6 x 235.4	89 x 428 x 543		89 x 428 x 543				
Weight (Net/Gross) kg	7.83 / 8.9	7.83 / 8.9	6.18 / 6.9	3.65 / 4.65	4.4 / 5.8	16.14 / 18.98		11.02 / 19.26				
Fan	2 (12cm)	2 (12cm)	2 (9cm)	1 (12cm)	1 (12cm)	3 (6cm)		3 (7cm)				
Power Consumption (W)	HDD Standby : 48.21 In Operation : 77.60 S3 Sleep : 2.84	HDD Standby : 46.21 In Operation : 70.45 S3 Sleep : 2.35	HDD Standby : 41.56 In Operation : 58.81 S3 Sleep : 2.19	HDD Standby : 34.77 In Operation : 50.38 S3 Sleep : 2.26	HDD Standby : 30.17 In Operation : 47.68 S3 Sleep : 2.26	HDD Standby : 35.14 In Operation : 83.52	HDD Standby : 7.85 In Operation : 126.59	HDD Standby : 23.54 In Operation : 39.86	HDD Standby : 36.89 In Operation : 52.88			
Power Supply	ATX 250W 100-240V	ATX 250W x 2 100-240V	ATX 250W 100-240V	ATX 250W x 2 100-240V								
Max. # of User Accounts	4096				4096	4096		4096				
Max. # of User Groups	512				512	512		512				
Max. # Shared Folders	512				512	512		512				
Max. Concurrent Connections (CIFS)	1000				800	800		800				
Max. # of IP Cameras	Default : 4 Max : 40 (optional)					Default : 2 Max : 24 (optional)						
QNAP Expansion Enclosure	UX-800P / UX-500P (Max : 2)					UX-800U-RP / UX-1200U-RP (Max : 1)						

		TS-451U	TS-x53 Pro Series					
TS-453U	TS-453U-RP	TS-451U	TS-853 Pro	TS-653 Pro	TS-453 Pro	TS-253 Pro	TS-853S Pro	TS-453S Pro
								
Intel® Celeron® Quad-Core 2.0 GHz (up to 2.41 GHz)	Intel® Celeron® Dual-Core 2.41 GHz (up to 2.58 GHz)		Intel® Celeron® Quad-Core 2.0 GHz (up to 2.41 GHz)		Intel® Celeron® Quad-Core 2.0 GHz		Intel® Celeron® Quad-Core 2.0 GHz	
4GB DDR3L (Max 8GB)	1 GB		8GB / 2GB (Max 8GB)		8GB / 2GB (Max 8GB)		4GB (Max 8GB)	
4 x 3.5 / 2.5	4 x 3.5 / 2.5	8 x 3.5 / 2.5	6 x 3.5 / 2.5	4 x 3.5 / 2.5	2 x 3.5 / 2.5	8 x 2.5"	8 x 2.5"	4 x 2.5"
SATA 6Gb/s, 3Gb/s		SATA 6Gb/s, 3Gb/s	SATA 6Gb/s, 3Gb/s		SATA 6Gb/s, 3Gb/s		SATA 6Gb/s, 3Gb/s	
✓	✓		✓		✓		✓	
4	2		4		2		4	2
---	---		---		---		---	
4 / 1	4 / 1		3 / 2		2 / 2		3 / 2	3 / 0
---	---		---		---		---	
1	1		1		1		1	
44 x 439 x 499	44 x 439 x 499	185 x 298 x 235	175 x 257 x 235	177 x 180 x 235	150 x 102 x 216	177 x 180 x 235	150 x 102 x 216	
7.63 / 11.6	7.63 / 11.60	7.83 / 8.9	6.18 / 6.9	3.65 / 4.65	1.74 / 2.92	3.65 / 4.65	1.74 / 2.92	
2 (4cm)	2 (4cm)	2 (12cm)	2 (9cm)	1 (9cm)	1 (7cm)	1 (9cm)	1 (7cm)	
HDD Standby: 23.54 In Operation : 39.86	HDD Standby: 36.89 In Operation : 52.88	HDD Standby: 21.03 In Operation : 38.01	HDD Standby : 26.81 In Operation : 56.79 S3 Sleep : 1.08	HDD Standby : 21.08 In Operation : 39.42 S3 Sleep : 1.09	HDD Standby : 15.85 In Operation : 31.07 S3 Sleep : 0.8	HDD Standby : 10.28 In Operation : 19.22 S3 Sleep : 0.74	HDD Standby : 20.01 In Operation : 32.27 S3 Sleep : 0.78	HDD Standby : 13.48 In Operation : 20.83
ATX 250W 100-240V	ATX 250W x 2 100-240V	ATX 250W 100-240V	ATX 350W 100-240V	ATX 250W 100-240V	ATX 250W 100-240V	External Adapter, 90W 100-240V	ATX 250W 100-240V	External Power Adapter, 90W 100-240V
4096	4096		4096		4096		4096	4096
512	512		512		512		512	512
512	512		512		512		512	512
800	700		800		800		800	800
Default : 2 Max : 24 (optional)			Default : 2 Max : 24 (optional)		Default : 2 Max : 24 (optional)		Default : 2 Max : 24 (optional)	
UX-800U-RP / UX-1200U-RP (Max : 1)			UX-800P / UX-500P (Max : 1)		UX-800P / UX-500P (Max : 1)		UX-800P / UX-500P (Max : 1)	

All specifications are subject to change without notice

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

Hardware specification

	TS-453mini	IS-453S	TS-x51 Series							
Turbo NAS Model	TS-453mini	IS-453S	TS-851	TS-651	TS-451	TS-251	TS-251C	TS-451S		
										
CPU	Intel® Celeron® Quad-Core 2.0 GHz (up to 2.41 GHz)	Intel® Atom® Quad-Core 1.91 GHz	Intel® Celeron® Dual-Core 2.41 GHz (up to 2.58 GHz)				Intel® Celeron® Dual-Core 2.41 GHz	Intel® Celeron® Dual-Core 2.41 GHz		
Memory	8 GB / 2 GB	8 GB / 2 GB	4GB / 1GB (Max 8GB)				1GB (non-upgradeable)	1GB (Max 8GB)		
HDD Size *	4 x 3.5 / 2.5	4 x 2.5	8 x 3.5 / 2.5	6 x 3.5 / 2.5	4 x 3.5 / 2.5	2 x 3.5 / 2.5	2 x 3.5	4 x 2.5		
HDD Type	SATA 6Gb/s, 3Gb/s	SATA 6Gb/s, 3Gb/s	SATA 6Gb/s, 3Gb/s				SATA 6Gb/s, 3Gb/s	SATA 6Gb/s, 3Gb/s		
HDD Hot Swappable	✓	✓	✓				---	✓		
Gigabit LAN	2	2	2				1	2		
PCI-E Slot	---	---	---				---	---		
USB 3.0 / USB 2.0	3 / 2	2 / 2	3 / 2		2 / 2		1 / 2	3 / 0		
eSATA	---	---	---				---	---		
HDMI	1	1	1				1	1		
Dimensions (HxWxD) mm	210x151x200	59x180x247	185x298x235	175x257x235	177x180x235	168x102x225	166x85x218	150x102x216		
Weight (Net/Gross) kg	2 / 3.4	1.11 / 3.92	7.83 / 8.9	6.18 / 6.9	3 / 4.3	1.28 / 2.32	0.94 / 3.16	1.74 / 2.92		
Fan	Internal compact system fan	---	2 (12cm)	2 (9cm)	1 (12cm)	1 (7cm)	1 (6cm)	1 (7cm)		
Power Consumption (W)	HDD Standby : 17.18 In Operation : 30.33 S3 Sleep : 1.04	HDD Standby : 13.54 In Operation : 19.77 S3 Sleep : 1.6	HDD Standby : 26.81 In Operation : 56.79 S3 Sleep : 0.72	HDD Standby : 21.08 In Operation : 39.42 S3 Sleep : 0.41	HDD Standby : 15.85 In Operation : 31.07 S3 Sleep : 0.55	HDD Standby : 10.28 In Operation : 19.22 S3 Sleep : 0.47	HDD Standby : 7.38 In Operation : 15.71 S3 Sleep : 0.7	HDD Standby : 13.48 In Operation : 20.83 S3 Sleep : 0.75		
Power Supply	External Adapter, 90W 100-240V	External Adapter, 96W 100-240V	ATX 350W 100-240V	ATX 250W 100-240V	External Adapter, 90W 100-240V	External Adapter, 60W 100-240V	External Adapter, 60W 100-240V	External Adapter, 90W 100-240V		
Max. # of User Accounts	4096	4096	4096				4096	4096		
Max. # of User Groups	512	512	512				512	512		
Max. # Shared Folders	512	512	512				512	512		
Max. Concurrent Connections (CIFS)	800	800	700				700	700		
Max. # of IP Cameras	Default : 2 Max. : 24 (optional)	Default : 4 Max. : 40 (optional)	Default : 2 Max. : 24 (optional)				Default : 2 Max. : 24 (optional)	Default : 2 Max. : 24 (optional)		
QNAP Expansion Enclosure	UX-800P / UX-500P (Max. : 1)	UX-800P / UX-500P (Max. : 1)	UX-800P / UX-500P (Max. : 1)				UX-800P / UX-500P (Max. : 1)	UX-800P / UX-500P (Max. : 1)		

Silent NAS	TS-x31U	TS-x31+ Series		TS-x31 Series			TS-x12 Series	
HS-251	TS-431U	TS-431+	TS-231+	TS-431	TS-231	TS-131	TS-212P	TS-112P
								
Intel® Celeron® Dual-Core 2.41 GHz	ARM® Cortex®-A9 Dual-Core 1.2 GHz	ARM® Cortex®-A15 Dual-Core 1.4 GHz		ARM® Cortex®-A9 Dual-Core 1.2 GHz			Marvell 1.6 GHz	Marvell 1.6 GHz
2GB / 1GB	1GB	1GB		512MB			512MB DDR3	512MB DDR3
2 x 3.5 / 2.5	4 x 3.5 / 2.5	4 x 3.5 / 2.5	2 x 3.5 / 2.5	4 x 3.5 / 2.5	2 x 3.5 / 2.5	1 x 3.5 / 2.5	2 x 3.5	1 x 3.5
SATA 3Gb/s	SATA 6Gb/s, 3Gb/s	SATA 6Gb/s, 3Gb/s		SATA 6Gb/s, 3Gb/s			SATA 3Gb/s	SATA 3Gb/s
✓	✓	✓		✓			No	No
2	2	2		2		1	1	1
---	---	---		---			---	---
2 / 2	4 / 1	3 / 0		3 / 0			2 / 1	2 / 1
---	---	---		1			---	1
1	---	---		---			---	---
41.3x302x220	44 x 439 x 499	177 x 180 x 235	150 x 102 x 216	177 x 180 x 235	150 x 102 x 216	168.5 x 73 x 225	165.5 x 85 x 218.4	165.5 x 60 x 218.4
1.56 / 2.62	7.63 / 11.60	3 / 4.3	1.28 / 2.32	3 / 4.3	1.28 / 2.32	1.04 / 2.29	0.91 / 2.2	0.79 / 1.60
---	2 (4cm)	1 (12cm)	1 (7cm)	1 (12cm)	1 (7cm)		1 (6cm)	1 (4cm)
HDD Standby : 8.96 In Operation : 15.64	HDD Standby : 21.03 In Operation : 38.01	HDD Standby : 11.89 In Operation : 26.15	HDD Standby : 9.03 In Operation : 16.01	HDD Standby : 14.84 In Operation : 33.75	HDD Standby : 9.78 In Operation : 20.56	HDD Standby : 6.26 In Operation : 13.31	Sleep mode: 6W In operation: 13W	Sleep mode: 5W In operation: 7W
External Adapter, 60W 100-240V	ATX 250W 100-240V	External Adapter, 90W 100-240V	External Adapter, 60W 100-240V	External Adapter, 90W 100-240V	External Adapter, 60W 100-240V	External Adapter, 36W 100-240V	External Adapter 60W, Input: 100- 240V	External Adapter 36W, Input: 100- 240V
4096	4096	4096		4096			2048	2048
512	512	512		512			256	256
512	512	512		512			256	256
700	400	600		400			256	256
Default : 2 Max : 24 (optional)	Default : 2 Max : 8 (optional)	Default : 2 Max : 16 (optional)		Default : 2 Max : 8 (optional)			Default: 2, Max.: 8 (optional license purchase)	
UX-800P / UX-500P (Max : 1)	N/A	N/A		N/A			N/A	

All specifications are subject to change without notice

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

Hardware specification

Mobile NAS	
Turbo NAS Model	QG-103N
	
Performance (Read/Write MB/s)	120 / 40 (USB 3.0)
CPU	MIPS 24KEc 600MHz
Memory	64MB
Flash Memory	16MB
Internal SSD	32GB
WiFi	802.11n 1T1R 150Mbps
Gigabit LAN	1
OLED Display	Yes
USB 3.0	1
SD Card Slot	1
Dimensions (HxWxD) mm	115 x 58.5 x 17.5
Weight	122 g
Power Consumption (W)	0.8 W
Power Adaptor	No

Expansion Units : REXP Series			
Turbo NAS Model	REXP-1600U-RP	REXP-1200U-RP	REXP-1000 Pro
			
Host Interface	Two SAS 6Gbps 4 x wide port (IN port, OUT port)	Two SAS 6Gbps 4 x wide port (IN port, OUT port)	Two SAS 6Gbps 4 x wide port (IN port, OUT port)
HDD Size & Interface	16 x 3.5"/2.5" SAS/SATA 6Gb/s	12 x 3.5"/2.5" SAS/SATA 6Gb/s	10 x 3.5"/2.5" SAS/SATA 6Gb/s
Dimensions (HxWxD) mm	130 x 442.4 x 528.3	88 x 439 x 520	217.5 x 327 x 321.2
Weight (Net/Gross) kg	18.14 / 25.92	14.8 / 21.18	9.24 / 13.78
Supported NAS models	TS-EC880U-RP, TVS-871U-RP, TS-EC1279U-SAS-RP, TS-EC1280U-RP, TVS-1271U-RP, TS-EC1679U-SAS-RP, TS-EC1680U-RP, TS-EC2480U-RP	TS-EC880U-RP, TVS-871U-RP, TS-EC1279U-SAS-RP, TS-EC1280U-RP, TVS-1271U-RP, TS-EC1679U-SAS-RP, TS-EC1680U-RP, TS-EC2480U-RP	TVS-EC1080+, TVS-EC1080 TS-EC1080 Pro, TVS-EC880 TS-EC880 Pro

Expansion Units : UX Series				
Turbo NAS Model	UX-1200U-RP	UX-800U-RP	UX-800P	UX-500P
				
Host Interface	USB 3.0 (type B)	USB 3.0 (type B)	USB 3.0 (type B)	USB 3.0 (type B)
HDD Size & Interface(2)	8 x 3.5"/2.5" SATA 6Gb/s	5 x 3.5"/2.5" SATA 6Gb/s	8 x 3.5"/2.5" SATA 6Gb/s	5 x 3.5"/2.5" SATA 6Gb/s
Dimensions (HxWxD) mm	185.2 x 298.2 x 235.4	185 x 210.6 x 235.4	185.2 x 298.2 x 235.4	185 x 210.6 x 235.4
Weight (Net/Gross) kg	12.86 / 14.84	12.44/14.42	7.3 / 8.6	5.1 / 6.5
Supported NAS models	TS-451U, TS-453U, TS-853U, TS-1253U, TS-453U-RP, TS-853U-RP, TS-1253U-RP	TS-451U, TS-453U, TS-853U, TS-1253U, TS-453U-RP, TS-853U-RP, TS-1253U-RP	TS-253 Pro, TS-453 Pro, TS-653 Pro, TS-853 Pro, TS-453S Pro, TS-853S Pro, TS-251, TS-451, TS-651, TS-851, HS-251, TVS-463, TVS-663, TVS-863, TVS-863+, TS-563	TS-253 Pro, TS-453 Pro, TS-653 Pro, TS-853 Pro, TS-453S Pro, TS-853S Pro, TS-251, TS-451, TS-651, TS-851, HS-251, TVS-463, TVS-663, TVS-863, TVS-863+, TS-563

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

Accessories

Category		Order P/N	Product Description
SAS Card		SAS-6G2E-D	Dual-wide-port storage expansion SAS 6Gbps card for desktop NAS
		SAS-6G2E-U	Dual-wide-port storage expansion SAS 6Gbps low-profile card for rackmount NAS
Rail Kit		RAIL-A01-35	Rail kit for TS-ECx79-SAS-RP series, SS-x79U-RP series, TS-x80U-RP series, REXP-1200U, REXP-1600U-RP
		RAIL-A02-90	Rail kit for TS-EC2480U-RP
		RAIL-B01	Rail kit for TVS-871U-RP, TVS-1271U-RP, TS-853U/TS853U-RP, TS-1253U/TS-1253U-RP, UX-800U-RP, UX-1200U-RP
		RAIL-B02	Rail kit for TS-453U/TS-453U-RP, TS-451U, TS-431U
LAN Card		LAN-1G2T-D	Dual-port 1 GbE network expansion card for desktop NAS
		LAN-1G2T-U	Dual-port 1 GbE network expansion low-profile card for rackmount NAS
mSATA Flash		FLASH-256GB-MSATA	2 x 128 GB mSATA flash module
RAM		RAM-4GDR3EC-LD-1600	4GB DDR3 ECC RAM, 1600MHz, Long-DIMM
		RAM-8GDR3EC-LD-1600	8GB DDR3 ECC RAM, 1600 MHz, Long-DIMM
		RAM-8GDR3-LD-1600	8GB DDR3 RAM, 1600 MHz, Long-DIMM
		RAM-2GDR3L-SO-1600	2GB DDR3L RAM, 1600 MHz, SO-DIMM
		RAM-4GDR3L-SO-1600	4GB DDR3L RAM, 1600 MHz, SO-DIMM
		RAM-8GDR3L-SO-1600	8GB DDR3L RAM, 1600 MHz, SO-DIMM
Cable		CAB-SAS10M-8088	MiniSAS external cable (SFF-8088 to SFF-8088), 1.0m
		CAB-SAS05M-8088	MiniSAS external cable (SFF-8088 to SFF-8088), 0.5m
		CAB-DAC15M-SFPP	SFP+ 10GbE twinaxial direct attach cable, 1.5m
Remote Control		RM-IR002	QNAP infrared (IR) remote control for HS-251, TS-x51, TS-x53, TVS- x63 series

10GbE network adapter compatibility list

10GBASE-T interface

Brand		Model	Specification
QNAP		LAN-10G2T-D	Dual-port 10GBASE-T network adapter for desktop NAS
		LAN-10G2T-U	Dual-port 10GBASE-T network adapter for rackmount NAS
		LAN-10G1T-D	Single-port 10GBASE-T network adapter for desktop NAS
Emulex		OCE11102-NT	Dual-port 10GBASE-T network adapter, for rackmount NAS
Intel		X520-T2 (E10G42BT)	Dual-port 10GBASE-T network adapter for desktop NAS, optional bracket (P/N: SP-BRACKET-10G-T) required for desktop NAS

SFP+ OPTIC interface

Brand		Model	Specification
Emulex		OCe11102-NM	Dual-port network adapter , short range optical cable, for rackmount NAS
		OCe11102-IM	Dual-port network adapter, short range optical cable, for rackmount NAS
Intel		X520-SR2 (E10G42BFSR)	Dual-port network adapter, short range optical cable, optional bracket (P/N: SP-BRACKET-10G-X520SR2) required for desktop NAS

SFP+ DAC (Direct Attach Copper) interface

Brand		Model	Specification
QNAP		LAN-10G1SR-D	Single-port SFP+ network adapter for desktop NAS, direct attach copper cable
Emulex		OCe11102-NX	Dual-port SFP+ network adapter, direct attach copper cable, for rackmount NAS
		OCe11102-IX	Dual-port SFP+ network adapter, direct attach copper cable, for rackmount NAS
Intel		X520-DA2 (E10G42BTDA)*	Dual-port SFP+ network adapter, direct attach copper cable, optional bracket (P/N: SP-BRACKET-10G-X520SR2) required for desktop NAS

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2015 PRODUCT SELECTION GUIDE

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