

# QTS hero

High-performance ZFS-based operating system with greater reliability

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



## Data Protection

Data integrity with self-healing capabilities



## Feature-rich QTS Apps

Expand NAS functionality without extra costs



## Outstanding Performance




Integrated SSD read/write caching for business efficiency



## Flexibility & Reliability

Flexible capacity management and reliable data backups

# QuTS hero NAS Series

	 TS-h977XU-RP-3700X	 TS-h1277XU-RP-3700X	 TS-h1283XU-RP-E2236
CPU	AMD Ryzen™ 7 3700X 8-core/16-thread 3.4 GHz processor, Turbo Core 4.4 GHz	AMD Ryzen™ 7 3700X 8-core/16-thread 3.4 GHz processor, Turbo Core 4.4 GHz	AMD Ryzen™ 7 3700X 8-core/16-thread 3.4 GHz processor, Turbo Core 4.4 GHz
CPU Architecture	64-bit x86	64-bit x86	64-bit x86
Floating Point Unit	--	V	V
Encryption Engine	V (AES-NI)	V (AES-NI)	V (AES-NI)
System Memory	32 GB UDIMM DDR4 (2 x 16GB)	128 GB UDIMM DDR4 (4 x 32GB) / 32 GB UDIMM DDR4 (2 x 16GB)	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)	128 GB (4 x 32 GB)
Memory Slot	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4	4 x Long-DIMM DDR4
Flash Memory	5 GB (Dual boot OS protection)	5 GB (Dual boot OS protection)	5 GB (Dual boot OS protection)
Drive Bay	4 x 3.5-inch + 5 x 2.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s	12 x 3.5-inch SATA 6Gb/s, 3Gb/s
Drive Compatibility	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives
Hot-swappable	V	V	V
SSD Cache Acceleration Support	V	V	V
Gigabit Ethernet Port (RJ45)	2	2	4
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	2 x 10GbE SFP+ SmartNIC port, 2 x 10GBase-T port
PCIe Slot	1	4	4
USB 3.0 port	4	4	--
USB 3.1 Gen 2 (10Gbps) Port	1 x Type-A USB 3.1 Gen2 5V/1A 10Gbps	1 x Type-C USB 3.1 Gen2 5V/3A 10Gbps 1 x Type-A USB 3.1 Gen2 5V/1A 10Gbps	2 x Type-C USB 3.1 Gen2 5V/3A 10Gbps 4 x Type-A USB 3.1 Gen2 5V/1A 10Gbps
Form Factor	1U Rackmount	2U Rackmount	2U Rackmount