

Product Specifications

SA3200D



Hardware Specs

Controller	
Number of Controller Module	2
CPU	
CPU Model	Intel Xeon D-1521
CPU Quantity	1 (per controller)
CPU Core	4
CPU Architecture	64-bit
CPU Frequency	2.4 (base) / 2.7 (turbo) GHz
Hardware Encryption Engine	v
Memory	
System Memory	8 GB DDR4 ECC UDIMM (per controller)
Memory Module Pre-installed	8 GB (8 GB x 1) (per controller)
Total Memory Slots	4 (per controller)
Maximum Memory Capacity	64 GB (16 GB x 4) (per controller)
Notes	<ul style="list-style-type: none">• Synology reserves the right to replace memory modules with the same or higher frequency based on supplier's product life cycle status. Rest assured that the compatibility and stability have been strictly verified with the same benchmark to ensure identical performance.• Please select Synology memory modules for optimum compatibility and reliability. Synology will not provide complete product warranty or technical support if non-Synology memory modules are used for memory expansion.• For more information on the recommended memory configurations, visit here.

Storage	
Drive Bays	12
Maximum Drive Bays with Expansion Unit	36 (RXD1219sas x 2)
Compatible Drive Type* (See all supported drives)	<ul style="list-style-type: none"> • 3.5" dual-port SAS HDD • 2.5" dual-port SAS HDD • 2.5" dual-port SAS SSD
Hot Swappable Drive*	v
Notes	"Compatible drive type" indicates drives that have been tested to be compatible with Synology products. This term does not indicate the maximum connection speed of each drive bay.
External Ports	
RJ-45 1GbE LAN Port	2 (per controller)
RJ-45 10GbE LAN Port	1 (per controller)
Expansion Port	1 (per controller)
Expansion Port Type	Mini-SAS HD
PCIe	
PCIe Expansion	1 x Gen3 x8 slot (x8 link) (per controller)
Appearance	
Form Factor (RU)	2U
Size (Height x Width x Depth)	88 mm x 482 mm x 724 mm
Weight	19.7 kg
Rack Installation Support*	4-post 19" rack (Synology Rail Kit - RKS-02)
Notes	The rail kit is sold separately
Others	

System Fan	60 mm x 60 mm x 2 pcs
Fan Speed Mode	<ul style="list-style-type: none"> • Full-Speed Mode • Cool Mode • Quiet Mode
Easy Replacement System Fan	v
Power Recovery	v
Noise Level*	51.3 dB(A)
Power Supply Unit / Adapter	500 watts
Redundant Power Supply	v
AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase
Power Consumption	417.48 watts (Access)
British Thermal Unit	1425.45 BTU/hr (Access)
Notes	<ul style="list-style-type: none"> • Power consumption is measured when it is fully loaded with Seagate ST3600057SS hard drive(s). • Noise Level Testing Environment: Fully loaded with Seagate ST8000NM0075 hard drive(s) in the idle state. Two G.R.A.S. Type 40AE microphones, each set up 1 meter away from the Synology server at the front and rear. Background noise: 16.49-17.51 dB(A); Temperature: 24.25-25.75°C; Humidity: 58.2-61.8%.

Temperature

Operating Temperature	0°C to 35°C (32°F to 95°F)
Storage Temperature	-20°C to 60°C (-5°F to 140°F)
Relative Humidity	5% to 95% RH

Certification

- FCC
- CE

- BSMI
- VCCI
- RCM
- EAC
- CCC

Warranty

5 Years

Notes

The warranty period starts from the purchase date as stated on your purchase receipt. ([Learn more](#))

Environment

RoHS Compliant

Packaging Content

- Main Unit X 1
- Accessory Pack X 1
- AC Power Cord X 2
- Quick Installation Guide X 1

Optional Accessories

- DDR4 ECC UDIMM: [D4EC-2666-8G/D4EC-2666-16G](#)
- Expansion Units: [RXD1219sas](#)
- Enterprise Series 3.5" SAS HDD: [HAS5300 Series](#)
- 25GbE Network Interface Card: [E25G30-F2](#)
- 10GbE Network Interface Card: [E10G30-F2/E10G30-T2/E10G18-T1](#)
- Rail Kit Sliding: [RKS-02](#)

Notes

All memory modules will operate at the maximum frequency specified by the CPU manufacturer.

Software Specs

DSM Specifications

Storage Management

Maximum Single Volume Size	<ul style="list-style-type: none">• 200 TB (32 GB memory required)• 108 TB
Maximum Internal Volume Number	64
SSD Read/Write Cache (Determining cache size)	v
SSD TRIM	v
RAID Group	v
Supported RAID Type	<ul style="list-style-type: none">• RAID F1• Basic• JBOD• RAID 0• RAID 1• RAID 5• RAID 6• RAID 10
RAID Migration	<ul style="list-style-type: none">• Basic to RAID 1• Basic to RAID 5• RAID 1 to RAID 5
Volume Expansion with Larger HDDs	<ul style="list-style-type: none">• RAID F1• RAID 1• RAID 5• RAID 6• RAID 10
Volume Expansion by Adding a HDD	<ul style="list-style-type: none">• RAID F1• JBOD• RAID 5

- RAID 6
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Global Hot Spare Supported RAID Type	<ul style="list-style-type: none"> • RAID F1 • RAID 1 • RAID 5 • RAID 6 • RAID 10
Notes	<ul style="list-style-type: none"> • Usable capacity for each volume will be lower than the maximum volume size and is dependent on the filesystem and the amount of system metadata stored. • Volumes over 108 TB require 32 GB of memory or more.
File System	
Internal Drives	<ul style="list-style-type: none"> • Btrfs • ext4
File Services	
File Protocol	<ul style="list-style-type: none"> • SMB • AFP • NFS • FTP • WebDAV • Rsync
Maximum Concurrent SMB/AFP/FTP Connections	1,200
Maximum Concurrent SMB/AFP/FTP Connections (with RAM expansion)	6,000
Windows Access Control List (ACL) Integration	v
NFS Kerberos Authentication	v
Notes	<ul style="list-style-type: none"> • Regarding data concerning tests with RAM expansion, all memory slots are installed with the maximum capacity of supported RAM. • During testing, the maximum number of SSDs supported by this model is installed in a RAID 5 configuration. • The testing standard was based on the maximum number of concurrent connections supported by this model. During the testing, 25% of the connections were

used to transfer files concurrently. The transfer process guaranteed that the connections were not interrupted; the minimum transfer speed was not guaranteed.

Account & Shared Folder

Maximum Local User Accounts	16,000
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Maximum Local Groups	512
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Maximum Shared Folder	512
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Maximum Shared Folder Sync Tasks	32
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Hybrid Share

Maximum Hybrid Share Folders	30
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Hyper Backup

Folder and Package Backup	v
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Entire System Backup	v
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Notes	Full-system backup requires DSM 7.2 or later.
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High Availability

Synology High Availability	v
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Notes	Synology High Availability is a built-in package for SA3200D to maximize service uptime. SA3200D does not support forming a high-availability cluster with another server unit.
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Log Center

Syslog Events per Second	3,000
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Virtualization

VMware ESXi 6.5 and VAAI	v
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Windows Server 2016	v
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Windows Server 2019	v
Windows Server 2022	v
Citrix Ready	v
OpenStack	v

General Specifications

Supported Protocols	SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, Fibre Channel, HTTP, HTTPs, FTP, SNMP, LDAP, CalDAV
Supported Browsers	<ul style="list-style-type: none"> • Chrome • Firefox • Edge • Safari
Supported Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ภาษาไทย, 日本語, 한국어, 繁體中文, 简体中文
Notes	For an updated list of supported browser versions, check the DSM Technical Specifications .

Add-on Packages [view the complete package list](#)

Central Management System

v

Synology Chat

Suggested Users

500

Notes

Models with expandable memory are tested with their maximum supported memory.

SAN Manager

Maximum iSCSI Target Number

256

Maximum LUN

512

LUN Clone/Snapshot, Windows ODX

v

Notes

iSCSI Manager has been renamed to SAN Manager in DSM 7.0.

Synology MailPlus / MailPlus Server

Free Email Accounts

5 ([Additional accounts require purchase of licenses](#))

Suggested Users

4,000

Maximum Server Performance

3,595,000 emails per day, approx. 109 GB

Notes

- Suggested users is derived from testing in an environment with 20% heavy users (each with 20,000 pre-populated emails and receiving 240 emails per day) and 80% light users (each receiving an average of 20 emails per day). [Learn more](#)
- Models with more than 4 bays were installed with two SSDs for SSD cache.
- Models with expandable memory are tested with their maximum supported memory.
- The performance of the mail system will slightly decrease in high-availability mode due to data synchronization between the two servers.
- Functions that were enabled in all of the tests above: anti-spam, anti-virus, DNSBL, greylist, content scan, full-text search (English only).

Snapshot Replication

Maximum Snapshots per Shared Folder	1,024
Maximum of System Snapshots	65,536

Surveillance Station

Default Licenses	2 (Additional cameras require purchase of licenses)
Suggested Maximum IP Cameras and Total FPS (H.264)	<ul style="list-style-type: none"> • 720p: 100 channels, 3000 FPS • 1080p: 100 channels, 2600 FPS • 3M: 100 channels, 1500 FPS • 5M: 90 channels, 900 FPS • 4K: 55 channels, 550 FPS
Suggested Maximum IP Cameras and Total FPS (H.265)	<ul style="list-style-type: none"> • 720p: 100 channels, 3000 FPS • 1080p: 100 channels, 3000 FPS • 3M: 100 channels, 2400 FPS • 5M: 100 channels, 1500 FPS • 4K: 100 channels, 1080 FPS
Notes	<ul style="list-style-type: none"> • Performance figures are obtained from testing conducted with the device fully populated with drives, with their default memory configuration, and under a continuous recording setup. Actual system capabilities may vary based on configuration, drive performance, enabled features, and the presence of additional workloads. • Use NVR Selector to quickly find a suitable model based on your requirements. • The maximum number of camera stream outputs is 2 times the suggested maximum number of IP cameras.

Synology Drive

Recommended Number of Concurrent Sync Clients	1,800 (the number of connections that can be maintained when the recommended number of hosted files was reached)
Recommended Number of Hosted Files	50,000,000 (applies to files indexed or hosted by Synology Drive . For file access through other standard protocols, refer to the File Services section above)
Notes	<ul style="list-style-type: none"> • Exceeding the recommended numbers above will not block application operations, but may result in longer response time.

- Utilizing SSD cache can significantly improve performance.
- Models with expandable memory are tested with their maximum supported memory.
- Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.

Synology Office

Suggested Users

7,000

Notes

- Suggested users is derived from testing in an environment with 60% idle users (each logging in and viewing documents) and 40% active users (each executing random actions at intervals of 20 to 40 seconds) operating within documents, each document having 30 users. [Learn more](#)
- Models with expandable memory are tested with their maximum supported memory.
- Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

Virtual Machine Manager

Recommended Virtual Machine Instances

8 ([Learn more](#))

Recommended Virtual DSM Number ([Licenses required](#))

8 (including 1 Free License)

Notes

The specifications vary depending on system configuration and memory size.

VPN Server

Maximum Connections

60