

Product Specifications

SA3600



Hardware Specs

CPU

CPU Model	Intel Xeon D-1567
CPU Quantity	1
CPU Architecture	64-bit
CPU Frequency	12-core 2.1 (base) / 2.7 (turbo) GHz
Hardware Encryption Engine (AES-NI)	v

Memory

System Memory	16 GB DDR4 ECC RDIMM
Memory Module Pre-installed	16 GB (16 GB x 1)
Total Memory Slots	4
Maximum Memory Capacity	128 GB (32 GB x 4)
Notes	• 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 about the recommended memory configurations, please check the Hardware Installation Guide of your Synology product. • For more information on memory upgrade limitations, visit here.

Storage

Drive Bays	12
Maximum Drive Bays with Expansion Unit	96 (RX1222sas/RX1217sas x 7) / 180 (RX2417sas x 7)
Compatible Drive Type* (See all supported drives)	• 3.5" SAS HDD • 2.5" SAS HDD • 2.5" SAS SSD • 3.5" SATA HDD • 2.5" SATA HDD • 2.5" SATA 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	4 (with Link Aggregation / Failover support)
RJ-45 10GbE LAN Port	2 (with Link Aggregation / Failover support)
USB 3.2 Gen 1 Port*	2
Expansion Port	1
Notes	The USB 3.0 standard was renamed to USB 3.2 Gen 1 by the USB Implementers Forum (USB-IF) in 2019.
PCIe	
PCIe Expansion	2 x Gen3 x8 slots (x8 link)
File System	
Internal Drives	• Btrfs • EXT4

External Drives	• Btrfs • EXT4 • EXT3 • FAT • NTFS • HFS+ • exFAT
Notes	exFAT Access can be installed for free from Package Center in DSM 7.0. In DSM 6.2 or earlier versions, exFAT Access needs to be purchased in Package Center.
Appearance	
Form Factor (RU)	2U
Size (Height x Width x Depth)	88 mm x 482 mm x 724 mm
Weight	14.5 kg
Rack Installation Support*	4-post 19" rack (Synology Rail Kit - RKS-02)
Notes	The rail kit is sold separately
Others	
System Fan	80 mm x 80 mm x 4 pcs
Fan Speed Mode	• Full-Speed Mode • Cool Mode • Quiet Mode
Easy Replacement System Fan	v
Power Recovery	v
Noise Level*	49.8 dB(A)
Scheduled Power On / Off	v
Wake on LAN / WAN	v
Power Supply Unit / Adapter	500 W
Redundant Power Supply	v

AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase
Power Consumption	156.23 W (Access) 72.37 W (HDD Hibernation)
British Thermal Unit	533.08 BTU/hr (Access) 246.94 BTU/hr (HDD Hibernation)
Notes	- Power consumption is measured when it is fully loaded with Western Digital 1TB WD10EFRX hard drive(s). - Noise Level Testing Environment: Fully loaded with Seagate 2TB ST2000VN000 hard drive(s) in the idle state. Two G.R.A.S. Type 40AE microphones, each set up 1 meter away from the Synology NAS 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
- EAC
- CCC
- KC
- VCCI
- RCM

Warranty

5 Years

Notes	The warranty period starts from the purchase date as stated on your purchase receipt. (Learn more)
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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 RDIMM: [D4RD-2666-16G*/D4RD-2666-32G](#)
- Expansion Units: [RX2417sas/RX1222sas/RX1217sas](#)
- 3.5" SAS HDD: [HAS5300](#)
- 3.5" SATA HDD: [HAT5300](#)
- 2.5" SATA SSD: [SAT5210](#)
- M.2 SSD & 10GbE Combo Adapter Card: [E10M20-T1](#)
- M.2 SSD Adapter Card: [M2D20](#)
- 25GbE Network Interface Card: [E25G21-F2](#)
- 10GbE Network Interface Card: [E10G21-F2/E10G18-T2/E10G18-T1](#)
- Rail Kit Sliding: [RKS-02](#)
- VisualStation: [VS360HD](#)
- Surveillance Device License Pack

Notes

- All memory modules will operate at the maximum frequency specified by the CPU manufacturer.
- It is required to use D4RD-2666-16G with identical memory modules of the same capacity and frequency. For more information, visit [here](#).

Software Specs

DSM Specifications

Storage Management

Maximum Single Volume Size*

- 1 PB (64 GB memory required, for RAID 6 groups only)
- 200 TB (32 GB memory required)
- 108 TB

Maximum Internal Volume Number

256

SSD Read / Write Cache (White Paper)	v
SSD TRIM	v
RAID Group	v
Supported RAID Type	• RAID F1 • Basic • JBOD • RAID 0 • RAID 1 • RAID 5 • RAID 6 • RAID 10
RAID Migration	• Basic to RAID 1 • Basic to RAID 5 • RAID 1 to RAID 5 • RAID 5 to RAID 6
Volume Expansion with Larger HDDs	• RAID F1 • RAID 1 • RAID 5 • RAID 6 • RAID 10
Volume Expansion by Adding a HDD	• RAID F1 • JBOD • RAID 5 • RAID 6
Global Hot Spare Supported RAID Type	• RAID F1 • RAID 1 • RAID 5 • RAID 6 • RAID 10

Notes	• 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. • On Peta Volume enabled volumes, Snapshot Replication, SSD caching, shared folder encryption, and compression will not be available. Please refer to this article for more information on limitations. • Each internal volume (may consist of multiple drives) is expandable up to 108 TB (with memory less than 32 GB) or 200 TB (with memory equal to or greater than 32 GB).
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File Services

File Protocol	SMB/AFP/NFS/FTP/WebDAV
Maximum Concurrent SMB/AFP/FTP Connections	4,000
Maximum Concurrent SMB/AFP/FTP Connections (with RAM expansion)	10,000
Windows Access Control List (ACL) Integration	v
NFS Kerberos Authentication	v

Notes	• 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.
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Account & Shared Folder

Maximum Local User Accounts	16,000
Maximum Local Groups	512
Maximum Shared Folder	512
Maximum Shared Folder Sync Tasks	32
Hybrid Share	
Maximum Hybrid Share Folders	30
High Availability	
Synology High Availability	v
Log Center	
Syslog Events per Second	3,000
Virtualization	
VMware vSphere with VAAI	v
Windows Server 2016	v
Windows Server 2019	v
Citrix Ready	v
OpenStack	v
General Specifications	
Networking Protocols	SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, Fibre Channel, HTTP, HTTPs, FTP, SNMP, LDAP, CalDAV
Supported Browsers	• Google Chrome • Firefox • Microsoft Edge • Safari

Supported Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ไทย, 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](#)

Antivirus by McAfee (Trial)

v

Central Management System

v

Synology Chat

Maximum Users	6,000
Maximum Number of Concurrent Users	600
Notes	When applicable, systems are tested configured with maximum memory and set to allow the maximum number of connections.

Document Viewer

v

Download Station

Maximum Concurrent Download Tasks	80
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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 (Licenses required for additional accounts)
Maximum Number of Concurrent Users	1,600
Maximum Server Performance	5,040,000 emails per day, approx. 151 GB
Notes	- Models with more than 4 bays were installed with two SSDs for SSD cache. - For tested models with expandable memory, the maximum amount of RAM was installed. - 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).

Media Server

DLNA Compliance	v
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Synology Photos

Facial Recognition	v
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Snapshot Replication

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

Surveillance Station

Maximum IP cam (Licenses required)	128 (including 2 Free License) (see all supported IP cameras)
Total FPS (H.264)	3840 FPS @ 720p (1280×720) 2800 FPS @ 1080p (1920×1080) 1200 FPS @ 3M (2048×1536) 700 FPS @ 5M (2591×1944) 500 FPS @ 4K (3840×2160)
Total FPS (H.265)	3840 FPS @ 720p (1280×720) 3840 FPS @ 1080p (1920×1080) 2400 FPS @ 3M (2048×1536) 1300 FPS @ 5M (2591×1944) 800 FPS @ 4K (3840×2160)
Notes	- Maximum IP cameras and FPS figures are tested with the device fully populated with drives and under a continuous recording setup. - Actual system capabilities may differ depending on system configuration, drive performance, number of features enabled, and if additional workloads are present.

Synology Drive

Recommended Number of Concurrent Sync Clients	2,000 (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	- Exceeding the recommended numbers above will not block application operations, but may result in longer response time. - Utilizing SSD cache can significantly improve performance. - For tested models with expandable memory, the maximum amount of RAM was installed. - Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.

Synology Office

Maximum Users	3,400
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Notes

- Multiple files were opened for testing and each file was edited by 30 users simultaneously.
- For tested models with expandable memory, the maximum amount of RAM was installed.
- Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

Video Station

Video Transcoding

Group 1 - Type 1 ([See more](#))

Maximum Transcoding Channel Number

1 channel, 30 FPS @ 1080p(1920×1080), H.264 (AVC)/MPEG-4 Part 2 (XVID, DIVX5)/MPEG-2/VC-1

Virtual Machine Manager

Recommended Virtual Machine Instances

24 ([Learn more](#))

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

24 (including 1 Free License)

Notes

The specifications vary depending on system configuration and memory size.

VPN Server

Maximum Connections

60