

**Product Specifications** 

SA3610





# **Hardware Specs**

CPU	
CPU Model	Intel Xeon D-1567
CPU Quantity	1
CPU Core	12
CPU Architecture	64-bit
CPU Frequency	2.1 (base) / 2.7 (turbo) GHz
Hardware Encryption Engine	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	<ul> <li>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.</li> <li>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.</li> <li>For multi-module memory configurations, all modules must be identical and share the same model number. Check the Product Manual of your Synology product for recommended memory configurations.</li> </ul>

Storage	
Drive Bays	12
Maximum Drive Bays with Expansion Unit	96 (RX1222sas x 7)
Drive Type (See all supported drives)	<ul> <li>3.5" SAS HDD</li> <li>2.5" SAS SSD</li> <li>3.5" SATA HDD</li> <li>2.5" SATA SSD</li> </ul>
Hot Swappable Drive*	v
Notes	Synology only guarantees full functionality, reliability, and performance for Synology drives listed on the compatibility list. The use of non-validated components may limit certain functionality and result in data loss and system instability.

External Ports	
RJ-45 1GbE LAN Port	4
RJ-45 10GbE LAN Port	2
Out-of-Band Management LAN Port	1
Max. Number of LAN Ports	15
USB 3.2 Gen 1 Port	2
Expansion Port	1
Expansion Port Type	Mini-SAS HD
Notes	This device's 1GbE LAN ports have a maximum transmission unit (MTU) size of 1,500 bytes.

PCle	
PCIe Expansion	2 x Gen3 ×8 slots (x8 link)

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	<ul><li>Full-Speed Mode</li><li>Cool Mode</li><li>Quiet Mode</li></ul>
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	550 watts
Redundant Power Supply	v
AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase
Power Consumption*	137.54 watts (Access) 58.23 watts (HDD Hibernation)
British Thermal Unit	469.30 BTU/hr (Access) 198.68 BTU/hr (HDD Hibernation)
Notes	<ul> <li>For more information on how power consumption is measured, refer to this article.</li> <li>Noise testing was conducted with the Synology system fully installed with Synology SATA SSDs and in an idle state. Two G.R.A.S. type 40AE microphones were placed at a 1 m distance from the front and rear of the device. Background noise: 16.49-17.51 dB(A); Temperature: 24.25-25.75°C; Humidity: 58.2-61.8%.</li> </ul>

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)
Operating Humidity	8% to 80% RH
Storage Humidity	5% to 95% RH

#### Certification

- FCC
- CE
- BSMI
- VCCI
- RCM
- UKCA
- EAC
- CCC
- KC
- UL

#### Warranty

5 Years

Notes	The warranty period starts from the purchase date as
Notes	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 RDIMM: D4ER01-16G\*/D4ER01-32G

• Expansion Units: RX1222sas

• Enterprise Series 3.5" SAS HDD: HAS5300 Series

• Enterprise Series 3.5" SATA HDD: HAT5300 Series

• Enterprise Series 2.5" SATA SSD: SAT5200 Series

• M.2 SSD & 10GbE Combo Adapter Card: E10M20-T1

• M.2 SSD Adapter Card: M2D20

• 25GbE Network Interface Card: E25G30-F2

• 10GbE Network Interface Card: E10G30-F2/E10G30-T2/E10G18-T1

• Rail Kit Sliding: RKS-02

Notes	For multi-module memory configurations, all modules must be identical and share the same model number. Check the Product Manual of your Synology product for recommended memory configurations.
Notes	Product Manual of your Synology product for recommended

# **Software Specs**

## **DSM Specifications**

Storage Management	
Maximum Single Volume Size	<ul> <li>1 PB (64 GB memory required, for RAID 6 groups only)</li> <li>200 TB (32 GB memory required)</li> <li>108 TB</li> </ul>
Maximum Internal Volume Number	256
SSD Read/Write Cache (Determining cache size)	V
SSD TRIM	v
RAID Group	V
Supported RAID Type	<ul> <li>RAID F1</li> <li>Basic</li> <li>JBOD</li> <li>RAID 0</li> <li>RAID 1</li> <li>RAID 5</li> <li>RAID 6</li> <li>RAID 10</li> </ul>
RAID Migration	<ul> <li>Basic to RAID 1</li> <li>Basic to RAID 5</li> <li>RAID 1 to RAID 5</li> <li>RAID 5 to RAID 6</li> </ul>
Volume Expansion with Larger HDDs	<ul> <li>RAID F1</li> <li>RAID 1</li> <li>RAID 5</li> <li>RAID 6</li> <li>RAID 10</li> </ul>
Volume Expansion by Adding a HDD	<ul><li>RAID F1</li><li>JBOD</li><li>RAID 5</li><li>RAID 6</li></ul>

Global Hot Spare Supported RAID Type	<ul> <li>RAID F1</li> <li>RAID 1</li> <li>RAID 5</li> <li>RAID 6</li> <li>RAID 10</li> </ul>
Notes	<ul> <li>Volumes over 108 TB require 32 GB of memory or more.</li> <li>Actual maximum storage pool and volume sizes depend on drive sizes used, the number of drive bays available, and the RAID configuration.</li> <li>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.</li> <li>When Peta Volume is enabled, validated services and packages are required. Please refer to this article for more information on limitations.</li> </ul>

File System	
Internal Drives	<ul><li>Btrfs</li><li>ext4</li></ul>
External Drives	<ul> <li>Btrfs</li> <li>ext4</li> <li>ext3</li> <li>FAT32</li> <li>NTFS</li> <li>HFS+</li> <li>exFAT</li> </ul>

File Services	
File Protocol	<ul><li>SMB</li><li>AFP</li><li>NFS</li><li>FTP</li><li>WebDAV</li><li>Rsync</li></ul>
Maximum Number of SMB Connections (FSCT-Based)	2,500
Windows Access Control List (ACL) Integration	V
NFS Kerberos Authentication	V
Notes	<ul> <li>Connection value of this model is tested with Synology SATA SSD fully populated and up to four 10GbE network ports</li> <li>Models with expandable memory are tested with the maximum supported quantity installed.</li> <li>SMB performance was evaluated using Microsoft File Server Capacity Tool (FSCT) version 1.3, with the following configuration:         <ul> <li>Test workload: HomeFolder scenario provided by the FSCT tool</li> <li>Test duration: 600 seconds</li> <li>Domain controller &amp; FSCT controller: Windows Server 2022</li> <li>FSCT clients: 8 × Windows 10 machines</li> <li>SMB feature: Directory leasing enabled</li> </ul> </li> </ul>

Account & Shared Folder	
Maximum Local User Accounts	10,240
Maximum Local Groups	512
Maximum Shared Folder	512
Maximum Shared Folder Sync Tasks	32

Hybrid Share	
Maximum Hybrid Share Folders	30

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

High Availability	
Synology High Availability	V

Log Center	
Syslog Events per Second	3,000

Virtualization	
VMware ESXi 6.5 and VAAI	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><li>Chrome</li><li>Firefox</li><li>Edge</li><li>Safari</li></ul>
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

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Synology Chat	
Maximum Number of Users	600
Notes	<ul> <li>Measured with simulated users, each with an average record of 20,000 messages, emojis, or stickers. The required server response time is below ten seconds.</li> <li>Models with expandable memory are tested with the maximum supported quantity installed.</li> </ul>

Download Station	
Maximum Concurrent Download Tasks	80

SAN Manager	
Maximum iSCSI Target Number	256
Maximum LUN	512
LUN Clone/Snapshot, Windows ODX	V

Synology MailPlus / MailPlus Server	
Free Email Accounts	5 (Additional accounts require purchase of licenses)
Maximum Number of Users	5,200
Notes	<ul> <li>The suggested maximum number of users is based on the following workload: 20% of users with a 20,000 item mailbox randomly performing actions and receiving 240 emails per day, and 80% of users receiving 20 emails per day. Learn more</li> <li>Models with SSD support are tested with a single SSD volume.</li> <li>Models with expandable memory are tested with the maximum supported quantity installed. Learn more about memory requirements.</li> <li>Operating in high-availability mode will incur additional overhead.</li> <li>Features enabled during evaluation: anti-spam, anti-virus, DNSBL, greylist, content scanning, and full-text search (English).</li> </ul>

Media Server	
DLNA Compliance	V

Synology Photos	
Facial Recognition	V
Object Recognition	V

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> <li>1080p: 160 channels, 2800 FPS</li> <li>3M: 160 channels, 1600 FPS</li> <li>5M: 120 channels, 1200 FPS</li> <li>4K: 80 channels, 800 FPS</li> </ul>
Suggested Maximum IP Cameras and Total FPS (H.265)	<ul> <li>1080p: 200 channels, 6000 FPS</li> <li>3M: 160 channels, 2800 FPS</li> <li>5M: 160 channels, 1600 FPS</li> <li>4K: 120 channels, 1200 FPS</li> </ul>
Notes	<ul> <li>Surveillance Station 9.1.3 or above is required to support the maximum IP cameras and FPS figures listed.</li> <li>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.</li> <li>Use NVR Selector to quickly find a suitable model based on your requirements.</li> <li>The number of streams that can be viewed simultaneously is twice the suggested maximum number of cameras. For example, if the suggested maximum number of cameras for a model is 10 under H.264, 1080p, the model can support up to 20 streams of the same specification at the same time.</li> <li>Performance metrics improve with the addition of expansion units. For detailed figures, please refer to this article.</li> </ul>

Synology Drive	
Maximum Number of Users	4,500
Maximum 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> <li>The suggested maximum number of users is based on the following workload: 20% of users randomly perform file operations (upload, download, move, and delete), and 80% of users are logged in but idle. Learn more</li> <li>Models with SSD support are tested with a single SSD volume.</li> <li>Models with expandable memory are tested with the maximum supported quantity installed.</li> <li>Exceeding the recommended numbers above will not block application operations, but may result in longer response time.</li> <li>Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.</li> </ul>

Synology Office	
Maximum Number of Users	4,400
Notes	<ul> <li>The suggested maximum number of users is based on the following workload: 20% of users are executing random actions at an average of 30-second intervals, and 80% of users are logged in and viewing a file. Learn more</li> <li>Models with SSD support are tested with a single SSD volume.</li> <li>Models with expandable memory are tested with the maximum supported quantity installed.</li> <li>Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM</li> </ul>

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	32