Synology®

Datasheet

High Scalability

SA3610

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SA3610

Scalability-First Storage for Growing Businesses

The Synology SA3610 is designed to provide large enterprises and studios with scalable, reliable data storage. Accommodating up to 1.728 PB[1] of raw storage capacity and different network configurations, these 12-bay rackmount servers are perfect for businesses that need to store large volumes of data without sacrificing performance and dependability. Advanced management, highavailability, and data protection solutions are available in the Synology DiskStation Manager (DSM) operating system.

- **Supercharged Performance**
  Efficient handling of data-intensive applications with over 6,200/3,000 MB/s sequential read/write throughput[2]
- **Petabyte-Scale Flexibility**
  Attach up to 7 additional Synology RX1222sas Expansion Units for up to 96 drive bays[3]
- **Flexible Networking Options**
  Leverage built-in 10GbE RJ-45 ports or boost network bandwidth with optional 10/25/40GbE and Fibre Channel adapters[4]
- **High Service Availability**
  Minimize downtime with Synology High Availability active-passive clustering and out-of-band (OOB) management
- **Long-Term Support**
  Backed by Synology's 5-year limited warranty[5]

Dependable Platform for Scalable Data Management

The extensive scaling capabilities of the SA3610 enable enterprise data centers, large production studios, and growing businesses to meet their increasing data storage needs by accessing over 1 PB of raw storage capacity on demand.

SA3610 delivers stable high throughput, perfect for smooth ingestion of large data volumes, including backups, and video recording or serving tasks. Hardware and software safeguards ensure maximum data and service availability, as well as reliable recovery options in case of disaster or attack.

- An **out-of-band (OOB) management port** facilitates remote troubleshooting and maintenance, while **redundant power supply units and system fans** reduce single points of hardware failure
- Built-in **dual 10GbE RJ-45 ports** make it easy to fit the SA3610 into existing fast networks, while **two PCIe 3.0 expansion slots** support expansion with 10/25/40GbE and Fibre Channel cards4 for bandwidth-consuming applications
- Support for **hybrid storage arrays** allows combining the speed of SSD and efficiency of HDD by designating **SATA and NVMe SSD volumes as read/write cache for HDD volumes** to cut down I/O speeds and latency[6]

Designed to Keep Data Available and Services Online

Built-in solutions help maintain high system availability and facilitate fast recovery if a disaster or major outage occurs.

- **Synology High Availability** provides fast failover between two identical units to keep services online when disaster strikes
- **Snapshot Replication** provides schedulable, near-instantaneous data protection with version control, ensuring that documents in shared folders and LUNs remain safe and available[1]
- **Hyper Backup** protects your Synology system by backing up data and configurations to multiple destinations, including the secure C2 Storage public cloud,[7] with efficiency delivered by built-in deduplication, integrity checks, compression, and versioning
- **Synology Active Backup Suite** lets you consolidate protection of Windows clients and servers, Linux endpoints, Synology systems, VMware® and Hyper-V® VMs, and SaaS applications, maximizing storage efficiency with data deduplication technology

Powerful Sharing and Collaboration Tools for Teams

Synology's collaboration suite provides a private cloud solution for on-site and remote workers to concurrently edit documents, share files, manage emails, send instant messages, and more.

- **Synology Drive** supports file sharing, remote data access, cross-device and cross-site synchronization, on-demand file restoration, and backup
- The **Synology Office** extension lets users collaborate on documents, spreadsheets, and presentation slides in real time, supported by convenient options such as file versioning for easy restoration and password protection of shared files
- **Synology Chat** brings teams together with one-on-one chats, group chats, and encrypted private channels over multiple platforms
- **Synology MailPlus**[8] provides a secure, reliable, and private email server
- **Synology Calendar** helps teams keep track of priorities with convenient calendar sharing and scheduling
- **Synology Hybrid Share** combines reliable on-premises storage with efficient syncing of shared folders in the cloud to enable seamless cross-site synchronization and local file access at LAN speed[7]

Certified Storage for Virtualization and Containerization

SA3610 units can serve as virtual machine storage, VM backup servers, and alternartive container or VM hosts. They are fully certified as storage for VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, and OpenStack environments.

- **Synology Storage Console** for VMware or Windows platforms lets you manage VM storage components directly from your hypervisor. VMware VAAI integration and Windows ODX help offload storage operations and speed up data transfer
- **Host lightweight containers and VMs** for testing, sandboxing, and emergency recovery purposes with Container Manager and Synology Virtual Machine Manager, a native hypervisor that supports Windows, Linux, and virtualized versions of DSM[9]

Backed by Synology’s 5-Year Limited Warranty

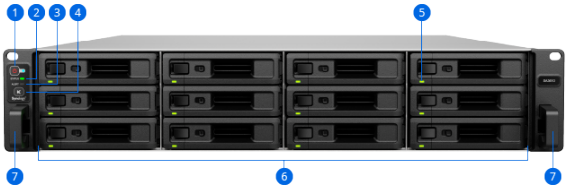
Maximize your return on investment with the comprehensive hardware replacement and premium technical support services offered under Synology’s 5-year limited hardware warranty.[5]

Notes:

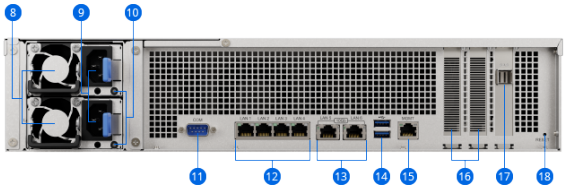
1. Volumes between 200 TB and 1 PB make use of the Btrfs (Peta Volume) file system and support a limited selection of applications, services, and configurations. Snapshot Replication, shared folder encryption, file compression, and other functions are not available for volumes over 200 TB. For more information and restrictions, refer to this article.
2. Performance figures obtained through internal testing by Synology using a RAID 6 configuration. Actual performance may vary depending on the testing environment, usage, and configuration. See performance charts for more information.
3. SA3610 supports up to 96 drives with seven Synology RX1222sas expansion units, sold separately.
4. For the most up-to-date list of compatible NICs, please check our compatibility list.
5. The warranty period starts from the date of purchase as stated on your purchase receipt. Learn more about our limited product warranty policy.
6. SSD cache can be enabled by using Synology SAT5200 2.5" SSDs in standard drive bays or without occupying drive bays by installing Synology SNV3500 NVMe SSDs using M2D20 or E10M20-T1 adapter cards, sold separately.
7. C2 Storage for Hyper Backup and Hybrid Share requires purchase of an annual or monthly subscription. A free trial is available for each newly registered device.
8. Five MailPlus email accounts are included. Additional email accounts can be added with the purchase of Synology MailPlus License Packs. Learn more.
9. Certain advanced features require Virtual Machine Manager Pro. One Virtual DSM license is included. Additional Virtual DSM instances require the purchase of Virtual DSM Licenses.

Hardware Overview

Front



Rear



No.	Name	No.	Name
1.	Power button and indicator	10.	PSU Indicators
2.	Status Indicator	11.	Console Port
3.	Alert Indicator	12.	1GbE RJ-45 Ports
4.	Mute Button	13.	10GbE RJ-45 Ports
5.	Drive Status Indicators	14.	USB 3.2 Gen 1 Ports
6.	Drive Trays	15.	Management Port
7.	Rail Kit Release Tabs	16.	PCI Express Expansion Slots
8.	PSU Fans	17.	Expansion Port
9.	Power Ports	18.	Reset Button

Technical Specifications

Hardware

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	Yes

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	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.

Storage	
Drive Bays	12
Maximum Drive Bays with Expansion Unit	96 (RX1222sas x 7)
Drive Type	• 3.5" SAS HDD • 2.5" SAS SSD • 3.5" SATA HDD • 2.5" SATA SSD
Hot Swappable Drive	Yes
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
USB 3.2 Gen 1 Port	2
Expansion Port	1

PCIe	
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 32 mm x 4 pcs
AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase

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
Maximum Operating Altitude	5,000 m

General 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 (Determining cache size)	Yes
Supported RAID Type	RAID F1,Basic,JBOD,RAID 0,RAID 1,RAID 5,RAID 6,RAID 10
Notes	• Volumes over 108 TB require 32 GB of memory or more. • Actual maximum storage pool and volume sizes depend on drive sizes used, the number of drive bays available, and the RAID configuration. • 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. • When Peta Volume is enabled, validated services and packages are required. Please refer to this article for more information on limitations.

File System	
Internal Drives	Btrfs,ext4
External Drives	Btrfs,ext4,ext3,FAT32,NTFS,HFS+,exFAT

File Services	
File Protocol	SMB,AFP,NFS,FTP,WebDAV,Rsync
Maximum Number of SMB Connections (FSCT-Based)	2,500
Windows Access Control List (ACL) Integration	Yes
NFS Kerberos Authentication	Yes

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

Virtualization	
VMware vSphere	ESXi 8.0 U2, ESXi 8.0 U1, ESXi 8.0, ESXi 7.0 U3, ESXi 7.0 U2, ESXi 7.0 U1, ESXi 7.0, ESXi 6.7 U3, ESXi 6.7 U2, ESXi 6.7 U1, ESXi 6.7, ESXi 6.5 U3, ESXi 6.5 U2, ESXi 6.5 U1, ESXi 6.5
Microsoft Hyper-V	Windows Server 2022
Citrix XenServer	XenServer 8, Citrix Hypervisor 8.2 LTSR CU1
OpenStack	Cinder

Security
Firewall, encryption shared folder, SMB encryption, FTP over SSL/TLS, SFTP, rsync over SSH, login auto block, Let's Encrypt support, HTTPS (customizable cipher suite)

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	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.

Packages and Applications

Synology AI Console	
Centralize AI management with flexible configurations for AI model integration, user access control, data privacy, usage policies, and resource allocation	
Third-Party AI Model Integration	v
Maximum De-Identification Rate	2,500 words per second
Notes	• De-identification performance measurement: Filters for Credit Card Numbers, IBAN, Individual Taxpayer Identification Number, SSN, and Names applied to a 4,355-word English text. • To enable de-identification, your device must have at least 8 GB of memory and Container Manager installed.

Synology Drive	
Synchronizes files across Windows®, macOS®, Linux®, Android™ and iOS. The built-in cross-platform portal allows access to data anytime and anywhere	
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)

File Station

Provides virtual drives, remote folders, Windows® ACL editor, compression/extraction of archived files, bandwidth control for specific users/groups, creation of sharing links, and transfer logs

Hybrid Share

Synchronize data across multiple sites for fast and efficient multi-site teamwork. Powered by Synology C2 Storage, Hybrid Share requires purchase of a monthly or annual subscription

SAN Manager

Maximum iSCSI Target Number	256
Maximum LUN	512
LUN Clone/Snapshot, Windows ODX	Yes

Virtual Machine Manager

Recommended Virtual Machine Instances	24 (Learn more)
Recommended Virtual DSM Number (Licenses required)	24 (including 1 Free License)

Hyper Backup

Supports local backup, network backup, and data backup to other servers and public clouds, including C2 Storage

Snapshot Replication

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

Synology High Availability

Reduces service downtime by combining two identical NAS into a high-availability cluster

Synology Chat	
Maximum Number of Users	600

Synology Office	
Maximum Number of Users	4,400

Synology MailPlus / MailPlus Server	
A secure, reliable, and private mail solution featuring high-availability, load balancing, security, and filtering options	
Free Email Accounts	5 (Additional accounts require purchase of licenses)
Maximum Number of Users	5,200

Surveillance Station	
Default Licenses	2 (Additional cameras require purchase of licenses)
Suggested Maximum IP Cameras and Total FPS (H.264)	• 1080p: 160 channels, 2800 FPS • 3M: 160 channels, 1600 FPS • 5M: 120 channels, 1200 FPS • 4K: 80 channels, 800 FPS
Suggested Maximum IP Cameras and Total FPS (H.265)	• 1080p: 200 channels, 6000 FPS • 3M: 160 channels, 2800 FPS • 5M: 160 channels, 1600 FPS • 4K: 120 channels, 1200 FPS

Central Management System
Provides a single interface to manage and monitor multiple Synology NAS

VPN Server	
Maximum Connections	32

Other packages

Additional 3rd-party packages are available in the Package Center

Environment & Packaging

Environment safety

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.

Warranty

5 Years

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

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