



DiskStation

# DS1823xs+



## Private Cloud Solution Built for Performance

The DS1823xs+ is a powerful 8-bay storage server that can easily be deployed anywhere to provide central data storage and sharing, endpoint and server backup, VM storage, surveillance management, and other business applications. It is perfect in settings where no dedicated server rack or data center is available. With over 3,100/2,600 MB/s sequential read/write performance, 144 TB of raw storage,<sup>1</sup> and the option to further boost I/O speeds through SSD cache, the DS1823xs+ provides powerful and flexible storage with built-in data protection capabilities.

## Highlights

- **Powerful Performance**  
Over 3,100/2,600 MB/s sequential read/write throughput and over 173,100/80,800 random read/write IOPS<sup>2</sup> support heavier applications
- **On-Demand Expansion**  
Attach up to 2 plug-and-play Synology DX517 Expansion Units<sup>3</sup> for up to 18 drive bays and 324 TB or raw storage
- **Comprehensive Backups**  
Protect your IT infrastructure with license-free solutions for backup, replication, and recovery
- **Availability Safeguards**  
Maximize uptime with hot-swappable drives, online volume expansion, and Synology High Availability clustering
- **Long-Term Support**  
Backed by Synology's 5-year limited warranty<sup>4</sup>

## Powerful Storage in a Desktop Form Factor

DS1823xs+ is a compact server designed for users ranging from small and medium-sized businesses to creative studios and IT enthusiasts maintaining home labs. Built-in data protection solutions and easy hardware expandability make it an excellent option for all scenarios requiring high-performance, dependable, and cost-efficient data storage.

- Over 3,100/2,600 MB/s sequential read/write performance supports large data transfer volumes and enables fast file sharing, syncing, and backup for multiple users
- Support for all-flash and hybrid storage arrays allows combining the I/O performance of SSDs and efficiency of HDDs, by designating M.2 NVMe and SATA SSDs as storage volumes or as read/write cache to speed up HDD volumes<sup>5</sup>
- Built-in 10GbE connectivity is supplemented by a PCIe 3.0 expansion slot to boost bandwidth through optional 1/10/25GbE and Fibre Channel expansion cards<sup>6</sup>
- Simple capacity expansion to 324 TB of raw storage is available whenever needed with two Synology DX517 Expansion Units<sup>3</sup>

## Engineered for Data and Service Availability

Maximize system and service uptime with hardware and software features that are designed with availability in mind.

- Hot-swappable drive trays ensure easy replacement in the event of drive malfunctions, while fanless CPU heat sinks with passive cooling technology reduce possible points of failure
- Comprehensive [web-based storage management](#) includes remote and automatic drive replacement through Synology DiskStation Manager, cloud-based system health and security monitoring with [Active Insight](#), and a dedicated out-of-band (OOB) management port that allows remote reboot, reset, and troubleshooting, even when the system is turned off
- [Synology High Availability](#) minimizes service downtime in case of planned maintenance, updates, or unforeseen disaster by providing fast failover between two identical units configured in an active-passive cluster

## Centralized Backup Platform for Data and Devices

Synology DSM comes standard with a complete package of [backup solutions](#) available at no extra cost.

- [Active Backup Suite](#) consolidates backup tasks and offers rapid restoration of Windows, Linux, and macOS endpoints, VMs, Synology systems, and SaaS applications
- [Snapshot Replication](#) creates point-in-time copies of shared folders and LUNs to protect them from accidental modifications or ransomware incidents
- [Hyper Backup](#) backs up your Synology system data to multiple destinations securely and efficiently with integrity checks and powerful deduplication, compression, and versioning options
- [C2 Storage for Hyper Backup](#) offers a dedicated secure public cloud destination for Synology NAS backup data<sup>7</sup>

## Collaboration and Communication Hub 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
- [Synology Chat](#) brings teams together with one-on-one chats, group chats, and encrypted private channels over multiple platforms
- [Synology MailPlus](#)<sup>8</sup> 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 and efficient syncing of shared folders in the cloud to enable seamless cross-site synchronization and local file access at LAN speeds<sup>7</sup>

## Reliable and Secure Virtualization and Containerization

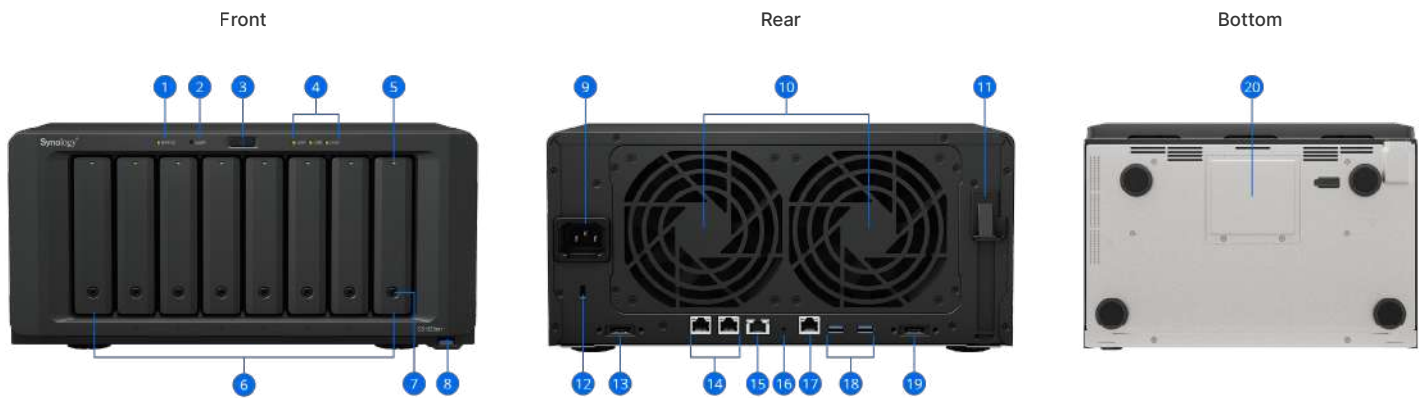
Leverage your Synology system as [virtual machine storage](#), VM backup server, and alternative container or VM host, with full certification for VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, and OpenStack environments.

- 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 transfers
- Host lightweight containers and VMs for testing, sandboxing, and emergency recovery purposes with [Docker](#) and [Synology Virtual Machine Manager](#), a native hypervisor that supports Windows, Linux, and virtual versions of DSM<sup>9</sup>

## 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.

# Hardware Overview



1	Status Indicator	2	Alert Indicator	3	Power Button and Indicator	4	LAN Indicators
5	Drive Status Indicators	6	Drive Trays	7	Drive Tray Locks	8	USB 3.2 Gen 1 Port
9	Power Port	10	Fans	11	PCI Express Expansion Slot	12	Kensington Security Slot
13	Expansion Port	14	1GbE RJ-45 Ports	15	10GbE RJ-45 Port	16	Reset Button
17	Management Port	18	USB 3.2 Gen 1 Ports	19	Expansion Port	20	Memory Slots

# Technical Specifications

## Hardware

CPU	AMD Ryzen V1780B
Memory	8 GB DDR4 ECC SODIMM (expandable up to 32 GB)
Compatible drive types	<ul style="list-style-type: none"><li>• 8 × 3.5" Synology SATA HDD or 2.5" Synology SATA SSD (drives not included)</li><li>• 2 × Synology M.2 2280 NVMe SSD (drives not included)</li><li>• 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<sup>10</sup></li></ul>
Hot swappable drives	Yes
External ports	<ul style="list-style-type: none"><li>• 3 × USB 3.2 Gen 1 ports</li><li>• 2 × Expansion ports (eSATA)</li></ul>
Form factor	Desktop
Size (HxWxD)	166 × 343 × 243 mm
Weight	6.2 kg
LAN ports	<ul style="list-style-type: none"><li>• 1 × 1GbE RJ-45 (out-of-band management and data transfer)</li><li>• 2 × 1GbE RJ-45 (data transfer)</li><li>• 1 × 10GbE RJ-45</li></ul>
Wake on LAN/WAN	Yes (only on 1GbE ports)
PCIe expansion	<ul style="list-style-type: none"><li>• 1 × 8 width slot, Gen 3.0 ×4 lanes</li><li>• Supports network interface cards<sup>6</sup></li></ul>
Scheduled power on/off	Yes
System fans	2 x (120 × 120 × 25 mm)
AC input power voltage	100 V to 240 V AC
Power frequency	50/60 Hz, single phase
Operating environment	<ul style="list-style-type: none"><li>• Temperature: 0°C to 40°C (32°F to 104°F)</li><li>• Relative humidity: 8% to 80% RH</li></ul>
Storage environment	<ul style="list-style-type: none"><li>• Temperature: -20°C to 60°C (-5°F to 140°F)</li><li>• Relative humidity: 5% to 95% RH</li></ul>
Maximum operating altitude	5,000 m (16,400 ft)

# General DSM Specifications

<b>Networking protocols</b>	SMB, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, and VPN (PPTP, OpenVPN™, L2TP)
<b>File systems</b>	<ul style="list-style-type: none"><li>• Internal: Btrfs, ext4</li><li>• External: Btrfs, ext4, ext3, FAT32, NTFS, HFS+, exFAT</li></ul>
<b>Supported RAID types</b>	Synology RAID F1, Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 6, and RAID 10
<b>Storage management</b>	<ul style="list-style-type: none"><li>• Max. single volume size: 108 TB/200 TB</li><li>• Max. number of system snapshots: 65,536<sup>11</sup></li><li>• Max. number of internal volumes: 256</li></ul>
<b>SSD cache<sup>5</sup></b>	<ul style="list-style-type: none"><li>• Read/write cache support</li><li>• M.2 NVMe and 2.5" SATA SSD support</li></ul>
<b>Out-of-band (OOB) management</b>	Power on, shutdown, force shutdown, force reboot, reset system, view DSM logs, monitor DSM logs, view OOB logs
<b>File sharing capabilities</b>	<ul style="list-style-type: none"><li>• Max. number of local user accounts: 16,000</li><li>• Max. number of local groups: 512</li><li>• Max. number of shared folders: 512</li><li>• Max. number of concurrent SMB/NFS/AFP/FTP connections: 2,000 (8,000 with RAM expansion)<sup>12</sup></li></ul>
<b>Privileges</b>	Windows® Access Control List (ACL) and application privileges
<b>Directory services</b>	Connects with Windows® AD/LDAP servers enabling domain users to login via SMB/NFS/AFP/FTP/File Station using their existing credentials
<b>Virtualization</b>	VMware® vSphere™, Microsoft® Hyper-V®, Citrix® XenServer™, OpenStack, and Kubernetes
<b>Security</b>	Firewall, shared folder encryption, SMB encryption, FTP over SSL/TLS, SFTP, rsync over SSH, login auto block, Let's Encrypt support, and HTTPS (customizable cipher suite)
<b>Supported browsers</b>	Google Chrome®, Firefox®, Microsoft Edge®, Safari® 13 and later, and Safari (iOS 13.0 and later) on iPad, Chrome (Android™ 11.0 and later) on tablets
<b>Interface languages</b>	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ไทย, 日本語, 한국어, 繁體中文, 简体中文

# Packages and Applications

## File Server & Synchronization

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[Drive](#)  
[File Station](#)  
[Hybrid Share<sup>7</sup>](#)  
[Presto File Server<sup>13</sup>](#)  
[Cloud Sync](#)  
[Universal Search](#)  
[Migration Assistant](#)

## Multimedia

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[Synology Photos](#)  
[Video Station](#)  
[Audio Station](#)  
[iTunes® Server](#)

## SAN Storage

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[SAN Manager](#)

## Surveillance

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[Surveillance Station<sup>14</sup>](#)

## Data Protection & Backup Solutions

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[Hyper Backup](#)  
[Snapshot Replication](#)  
[Synology High Availability](#)  
[Active Backup for Business](#)  
[Active Backup for Google Workspace](#)  
[Active Backup for Microsoft 365](#)

## Office Productivity

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[Synology Office](#)  
[Synology Calendar](#)  
[Note Station](#)

## Management & Administration

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[Synology Directory Server](#)  
[Central Management System](#)  
[VPN Server](#)  
[Active Insight<sup>15</sup>](#)  
[Storage Analyzer](#)

[Antivirus Essential](#)  
[Web Station](#)  
[DNS Server](#)  
[RADIUS Server](#)  
[Log Center](#)

## Others

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iOS/Android™ applications



Scan the QR code to download  
the detailed Product Specification sheet

<https://sy.to/ds1823xspdpsqr>



# Environment and Packaging

<b>Environmental safety</b>	RoHS compliant
<b>Package contents</b>	<ul style="list-style-type: none"><li>• 1 x DS1823xs+ main unit</li><li>• 1 x Quick Installation Guide</li><li>• 1 x Accessory pack</li><li>• 1 x AC power cord</li><li>• 2 x RJ-45 LAN cable</li></ul>
<b>Optional accessories<sup>16</sup></b>	<ul style="list-style-type: none"><li>• DDR4 SODIMM: D4ES02-8G / D4ES01-16G</li><li>• Expansion Unit: DX517</li><li>• 10GbE Network Interface Card: E10G21-F2 / E10G18-T2 / E10G18-T1</li><li>• 25GbE Network Interface Card: E25G21-F2</li><li>• M.2 2280 NVMe SSD: SNV3400 Series</li><li>• 2.5" SATA SSD: SAT5200 Series</li><li>• 3.5" SATA HDD: HAT5300 Series</li><li>• MailPlus License Pack<sup>8</sup></li><li>• Surveillance Device License Pack<sup>14</sup></li><li>• Virtual DSM License Pack<sup>9</sup></li></ul>
<b>Warranty</b>	5 years <sup>4</sup>

Note: Specifications are subject to change without notice. Please refer to the model's [specifications page](#) for the most up to date information.

1. Raw capacity. Usable storage capacity may vary depending on drives used and RAID configuration.
2. Performance figures obtained through internal testing by Synology. Actual performance may vary depending on the testing environment, usage, and configuration. See [performance charts](#) for more information.
3. DS1823xs+ supports up to 18 drives with [two Synology DX517 Expansion Units](#), sold separately.
4. The warranty period starts from the date of purchase as stated on your purchase receipt. Visit <https://www.synology.com/company/legal/warranty> for more information.
5. SSD cache can be enabled by using Synology SAT5200 Series 2.5" SATA SSD drives in standard drive bays or without occupying drive bays by installing Synology SNV3400 Series M.2 NVMe SSD drives through the built-in M.2 slots. SNV3400 Series M.2 NVMe SSD drives can also be used to create SSD storage pools. Drives are sold separately.
6. For the most up-to-date list of compatible NICs and HBAs, please check our [compatibility list](#).
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](#).
10. Check our [compatibility list](#) for supported drives.
11. System snapshots include snapshots taken by SAN Manager, Snapshot Replication, and Virtual Machine Manager.
12. Maximum concurrent connections can be increased to 8,000 with maximum installed memory of 32 GB RAM.
13. Presto File Server license can be purchased separately through the application.
14. Surveillance Station includes two free licenses. Connecting more cameras and devices requires additional licenses. [Learn more](#).
15. Synology Active Insight requires purchase of an annual or monthly [subscription](#). A free trial is available for each Synology Account.
16. Please refer to our [compatibility list](#) for the latest optional accessories list.

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