

Product Specifications

DS223

Synology

Hardware Specs

CPU	
CPU Model	Realtek RTD1619B
CPU Quantity	1
CPU Cores	4
CPU Threads	4
CPU Architecture	64-bit
CPU Frequency	1.7 GHz
Hardware Encryption Engine	v

Memory	
System Memory	2 GB DDR4 non-ECC
Notes	Synology may revise pre-installed memory module specifications in response to component lifecycle and supply conditions. All revised components undergo the same rigorous validation to ensure equivalent compatibility, stability, and performance.

Storage	
Drive Bays (See all supported drives)	2 × 3.5" SATA HDD or 2.5" SATA SSD
Hot Swappable Drive*	v

External Ports

RJ-45 1GbE LAN Port	1
USB 3.2 Gen 1 Port	3
USB Copy	v
Notes	This device's 1GbE LAN ports have a maximum transmission unit (MTU) size of 1,500 bytes.

Appearance

Size (Height × Width × Depth)	165 mm × 108 mm × 232.7 mm
Weight	1.28 kg

Others	
System Fan	92 mm × 92 mm × 1 pcs
Fan Speed Mode	• Full-Speed Mode • Cool Mode • Quiet Mode
Brightness Adjustable Front LED Indicators	v
Power Recovery	v
Noise Level	14.6 dB(A)
Scheduled Power On / Off	v
Wake on LAN / WAN	v
Power Supply Unit / Adapter	60 watts
AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase
Power Consumption	17.343 watts (Access) 4.08 watts (HDD Hibernation)
British Thermal Unit	59.19 BTU/hr (Access) 13.92 BTU/hr (HDD Hibernation)
Notes	• For more information on how power consumption is measured, refer to this article. • 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%.

Temperature

Operating Temperature	0°C to 40°C (32°F to 104°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
- BIS

Warranty

2-year hardware warranty, extendable to 4 years with [Extended Warranty Plus](#)

Notes

- The warranty period starts from the purchase date as stated on your purchase receipt. ([Learn more](#))
- [Extended Warranty Plus](#) is only available in Europe and North America. [EW201/EW202](#) is only available in Asia, Africa, and Oceania. For exact availability information please visit their respective websites.

Environment

RoHS Compliant

Packaging Content

- Main Unit × 1
 - Accessory Pack × 1
 - AC Power Adapter × 1
 - AC Power Cord × 1
 - RJ-45 LAN Cable × 1
 - Quick Installation Guide × 1
-

Optional Accessories

- Enterprise Series 3.5" SATA HDD: [HAT5300 Series](#)
 - Plus Series 3.5" SATA HDD: [HAT3300 Series](#)
 - Enterprise Series 2.5" SATA SSD: [SAT5200 Series](#)
-

Software Specs

DSM Specifications

Storage Management

Maximum Single Volume Size	108 TB
Maximum Internal Volume Number	64
SSD TRIM	v
Supported RAID Type	• Synology Hybrid RAID • Basic • JBOD • RAID 0 • RAID 1
RAID Migration	• Basic to RAID 1
Volume Expansion with Larger HDDs	• Synology Hybrid RAID • RAID 1
Notes	• 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.

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)	5
Windows Access Control List (ACL) Integration	v
NFS Kerberos Authentication	v
Notes	• Connection value of this model is tested with Synology SATA HDD fully populated and all onboard network ports • SMB performance was evaluated using Microsoft File Server Capacity Tool (FSCT) version 1.3, with the following configuration: ◦ Test workload: HomeFolder scenario provided by the FSCT tool ◦ Test duration: 600 seconds ◦ Domain controller & FSCT controller: Windows Server 2022 ◦ FSCT clients: 8 × Windows 10 machines ◦ SMB feature: Directory leasing enabled

Account & Shared Folder

Maximum Local User Accounts	256
Maximum Local Groups	64
Maximum Shared Folder	64
Maximum Shared Folder Sync Tasks	2

Hyper Backup

Folder and Package Backup	v
---------------------------	---

Log Center

Syslog Events per Second	400
--------------------------	-----

General Specifications

Supported Protocols	SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, 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 .

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

Synology Chat

v

Download Station

Maximum Concurrent Download Tasks	80
-----------------------------------	----

SAN Manager

Maximum iSCSI Target Number	2
Maximum LUN	4
LUN Clone/Snapshot, Windows ODX	v

Media Server

DLNA Compliance

v

Synology Photos

Facial Recognition

v

Snapshot Replication

Maximum Snapshots per
Shared Folder

128

Maximum Snapshots per LUN

32

Maximum Snapshots per
System

1,024

Maximum Replication Tasks
for Shared Folders

16

Maximum Replication Tasks
for LUNs

8

Maximum Replication Tasks
per System

16

Surveillance Station

Default Licenses	2 (Additional cameras require purchase of licenses)
Maximum IP Cameras and Total FPS (H.264)	• 1080p: 20 channels, 460 FPS • 3M: 20 channels, 300 FPS • 5M: 15 channels, 150 FPS • 4K: 11 channels, 110 FPS
Maximum IP Cameras and Total FPS (H.265)	• 1080p: 20 channels, 500 FPS • 3M: 20 channels, 400 FPS • 5M: 20 channels, 350 FPS • 4K: 20 channels, 200 FPS
Notes	• 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 number of video channels that can be viewed simultaneously is double the maximum number of cameras for the same codec and resolution. • The values above are based on testing with RTSP streaming. If SRTP is enabled for all cameras, overall performance will decrease to 70% of the stated figures.

Synology Drive

Maximum Number of Users	5
Maximum Number of Hosted Files	100,000 (applies to files indexed or hosted by Synology Drive . For file access through other standard protocols, refer to the File Services section above)
Notes	• 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 • Models with SSD support are tested with a single SSD volume. • Exceeding the recommended numbers above will not block application operations, but may result in longer response time. • Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.

Synology Office

Maximum Number of Users	5
Notes	• 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 • Models with SSD support are tested with a single SSD volume. • Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

VPN Server

Maximum Connections	2
---------------------	---