Synology

Product Specifications

DS223

Last updated: Jan 20, 2025

Hardware Specs

CPU	
CPU Model	Realtek RTD1619B
CPU Quantity	1
CPU Core	4
CPU Architecture	64-bit
CPU Frequency	1.7 GHz
Hardware Encryption Engine	v
Memory	
System Memory	2 GB DDR4 non-ECC
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.
Storage	
Drive Bays	2
Compatible Drive Type* (See all supported drives)	• 3.5" 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	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. • The USB 3.0 standard was renamed to USB 3.2 Gen 1 by the USB Implementers Forum (USB-IF) in 2019.
Appearance	
Size (Height x Width x Depth)	165 mm x 108 mm x 232.7 mm
Weight	1.28 kg
Others	
System Fan	92 mm x 92 mm x 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)
Relative 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 X 1
- Accessory Pack X 1
- AC Power Adapter X 1
- AC Power Cord X 1
- RJ-45 LAN Cable X 1
- Quick Installation Guide X 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
Volume Expansion by Adding a HDD	• Synology Hybrid RAID
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. • Actual maximum storage pool and volume sizes depend on drive sizes used, the number of drive bays available, and the RAID configuration.
File System	
Internal Drives	• Btrfs • ext4
External Drives	• Btrfs • ext4 • ext3

	• FAT • NTFS • HFS+ • exFAT

File Services	
File Protocol	• SMB • AFP • NFS • FTP • WebDAV • Rsync
Maximum Concurrent SMB/AFP/FTP Connections	200
Windows Access Control List (ACL) Integration	v
NFS Kerberos Authentication	v
Notes	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.
Account & Shared Folder	
Maximum Local User Accounts	1,024
Maximum Local Groups	256
Maximum Shared Folder	256
Maximum Shared Folder Sync Tasks	4
Hybrid Share	
Maximum Hybrid Share Folders	5
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	10
Maximum LUN	10
LUN Clone/Snapshot, Windows ODX	v
Media Server	
DLNA Compliance	v
Synology Photos	
Facial Recognition	v
Snapshot Replication	
Maximum Snapshots per Shared Folder	256
Maximum of System Snapshots	4,096
Surveillance Station	
Default Licenses	2 (Additional cameras require purchase of licenses)
Suggested 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
Suggested 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 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.
Synology Drive	
Recommended Number of Concurrent Sync Clients	200 (the number of connections that can be maintained when the recommended number of hosted files was reached)
Recommended Number of Hosted Files	500,000 (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. • Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.
Synology Office	
Suggested Users	500
Notes	• Suggested users is derived from testing in an environment with 60% idle users (each logging in and viewing documents) and 40% active users (each executing random actions at intervals of 20 to 40 seconds) operating within documents, each document having 30 users. Learn more • Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

VPN Server	
Maximum Connections	20