

Product

DS223j



Hardware Specs

CPU	
CPU Model	Realtek RTD1619B
CPU Quantity	1
CPU Architecture	64-bit
CPU Frequency	4-core 1.7 GHz
Hardware Encryption Engine	v
Memory	
System Memory	1 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)	<ul style="list-style-type: none">• 3.5" SATA HDD• 2.5" SATA SSD (with optional 2.5" Disk Holder)
Hot Swappable Drive*	-
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*	2

Notes	<ul style="list-style-type: none"> • 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.
File System	
Internal Drives	<ul style="list-style-type: none"> • Btrfs • EXT4
External Drives	<ul style="list-style-type: none"> • Btrfs • EXT4 • EXT3 • FAT • NTFS • HFS+ • exFAT
Notes	Btrfs file system is available from DSM 7.2-64570.
Appearance	
Size (Height x Width x Depth)	165 mm x 100 mm x 225.5 mm
Weight	0.88 kg
Others	
System Fan	92 mm x 92 mm x 1 pcs
Fan Speed Mode	<ul style="list-style-type: none"> • Full-Speed Mode • Cool Mode • Quiet Mode • Low-power Mode
Brightness Adjustable Front LED Indicators	v
Power Recovery	v
Noise Level*	18.2 dB(A)
Scheduled Power On / Off	v
Wake on LAN / WAN	v

Power Supply Unit / Adapter	60 W
Redundant Power Supply	-
AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase
Power Consumption	16.31 W (Access) 4 W (HDD Hibernation)
British Thermal Unit	55.62 BTU/hr (Access) 13.64 BTU/hr (HDD Hibernation)
Notes	<ul style="list-style-type: none"> • For more information on how power consumption is measured, refer to this article. • Noise Level Testing Environment: Fully loaded with Seagate 2TB ST2000VN000 hard drive(s) in the idle state. Two G.R.A.S. Type 40AE microphones, each set up 1 meter away from the Synology NAS at the front and rear. 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

Warranty

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

Notes

- Availability varies by region. Before purchasing, please visit the official web pages of [EW201/202](#) and [Extended Warranty Plus](#) for a list of eligible regions.
- The warranty period starts from the purchase date as stated on your purchase receipt. ([Learn more](#))

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

- 3.5" SATA HDD: [HAT3300](#)
- Surveillance Device License Pack
- Disk Holder: Type C

Software Specs

DSM Specifications

Storage Management

Maximum Single Volume Size*	108 TB
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Maximum Internal Volume Number	64
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Supported RAID Type	<ul style="list-style-type: none">• Synology Hybrid RAID• Basic• JBOD• RAID 0• RAID 1
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RAID Migration	Basic to RAID 1
Volume Expansion with Larger HDDs	<ul style="list-style-type: none"> • Synology Hybrid RAID • RAID 1
Volume Expansion by Adding a HDD	Synology Hybrid RAID
Notes	<ul style="list-style-type: none"> • 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 Services

File Protocol	SMB/AFP/NFS/FTP/WebDAV
Maximum Concurrent SMB/AFP/FTP Connections	100
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

Hyper Backup

Folder and Package Backup

v

Log Center

Syslog Events per Second

200

General Specifications

Networking Protocols

SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, HTTP, HTTPs, FTP, SNMP, LDAP, CalDAV

Supported Browsers

- Google Chrome
- Firefox
- Microsoft 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
Notes	Snapshot Replication is available from DSM 7.2-64570.
Surveillance Station	
Maximum IP cam (Licenses required)	12 (including 2 Free License) (see all supported IP cameras)
Total FPS (H.264)	360 FPS @ 720p (1280×720) 360 FPS @ 1080p (1920×1080) 300 FPS @ 3M (2048×1536) 150 FPS @ 5M (2591×1944) 110 FPS @ 4K (3840×2160)
Total FPS (H.265)	360 FPS @ 720p (1280×720) 360 FPS @ 1080p (1920×1080) 360 FPS @ 3M (2048×1536) 350 FPS @ 5M (2591×1944) 200 FPS @ 4K (3840×2160)
Notes	<ul style="list-style-type: none"> • Maximum IP cameras and FPS figures are tested with the device fully populated with drives and under a continuous recording setup. • Actual system capabilities may differ depending on system configuration, drive performance, number of features enabled, and if additional workloads are present.

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	<ul style="list-style-type: none">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 Users	200
Notes	<ul style="list-style-type: none">Multiple files were opened for testing and each file was edited by 30 users simultaneously.Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

Video Station

v

VPN Server

Maximum Connections	10
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