Product

DS223j

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	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)	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	- 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 100 mm x 225.5 mm
Weight	0.88 kg

Others

System Fan	92 mm x 92 mm x 1 pcs
Fan Speed Mode	- 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 watts
AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase
Power Consumption	16.31 watts (Access) 4 watts (HDD Hibernation)
British Thermal Unit	55.62 BTU/hr (Access) 13.64 BTU/hr (HDD Hibernation)

Notes	- 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	- 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

- Plus Series 3.5" SATA HDD: HAT3300 Series
- Disk Holder: Type C

Software Specs

DSM Specifications

Storage Management

Maximum Single Volume Size	108 TB
Maximum Internal Volume Number	64
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
Notes	Btrfs file system is available from DSM 7.2-64570.

File Services

File Protocol	• SMB • AFP • NFS • FTP • WebDAV • Rsync
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

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
Notes	Snapshot Replication is available from DSM 7.2-64570.

Surveillance Station

Default Licenses	2 (Additional cameras require purchase of licenses)
Suggested Maximum IP Cameras and Total FPS (H.264)	720p: 12 channels, 360 FPS 1080p: 12 channels, 360 FPS 3M: 12 channels, 300 FPS 5M: 12 channels, 150 FPS 4K: 11 channels, 110 FPS

Suggested Maximum IP Cameras and Total FPS (H.265)	• 720p: 12 channels, 360 FPS • 1080p: 12 channels, 360 FPS • 3M: 12 channels, 360 FPS • 5M: 12 channels, 350 FPS • 4K: 12 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 maximum number of camera stream outputs is 2 times the suggested maximum number of IP cameras.

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 Maximum Users	500
Suggested Concurrent Users	200
Notes	• 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