

Product

DS224+



Hardware Specs

CPU	
CPU Model	Intel Celeron J4125
CPU Quantity	1
CPU Core	4
CPU Architecture	64-bit
CPU Frequency	2.0 (base) / 2.7 (turbo) GHz
Hardware Encryption Engine	v
Memory	
System Memory	2 GB DDR4 non-ECC
Total Memory Slots	1
Maximum Memory Capacity	6 GB (2 GB + 4 GB)
Notes	<ul style="list-style-type: none">• 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.• Please select Synology memory modules for optimum compatibility and reliability. Synology will not provide complete product warranty or technical support if non-Synology memory modules are used for memory expansion.
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

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	2
USB 3.2 Gen 1 Port*	2
USB Copy	v
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.
Appearance	
Size (Height x Width x Depth)	165 mm x 108 mm x 232.2 mm
Weight	1.30 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
Brightness Adjustable Front LED Indicators	v
Power Recovery	v
Noise Level*	22 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	14.69 watts (Access) 4.41 watts (HDD Hibernation)
British Thermal Unit	50.09 BTU/hr (Access) 15.04 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 testing was conducted with the Synology system fully installed with Synology SATA HDDs and in an idle state. Two G.R.A.S. Type 40AE microphones are 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
- 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 2
- Quick Installation Guide X 1

Optional Accessories

- DDR4 non-ECC SODIMM: [D4NESO-2666-4G](#)
- Plus Series 3.5" SATA HDD: [HAT3300 Series](#)

Notes

All memory modules will operate at the maximum frequency specified by the CPU manufacturer.

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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SSD TRIM	v
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Supported RAID Type	<ul style="list-style-type: none"> • Synology Hybrid RAID • Basic • JBOD • RAID 0 • RAID 1
RAID Migration	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 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

File Services

File Protocol	<ul style="list-style-type: none"> • SMB • AFP • NFS • FTP • WebDAV • Rsync
Maximum Concurrent SMB/AFP/FTP Connections	500

Maximum Concurrent SMB/AFP/FTP Connections (with RAM expansion)	1,500
Windows Access Control List (ACL) Integration	v
NFS Kerberos Authentication	v
Notes	<ul style="list-style-type: none"> Regarding data concerning tests with RAM expansion, all memory slots are installed with the maximum capacity of supported RAM. 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	2,048
Maximum Local Groups	256
Maximum Shared Folder	256
Maximum Shared Folder Sync Tasks	8

Hybrid Share

Maximum Hybrid Share Folders	10
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Hyper Backup

Folder and Package Backup	v
Entire System Backup	v
Notes	Full-system backup requires DSM 7.2 or later.

High Availability

Synology High Availability

v

Log Center

Syslog Events per Second

800

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](#)

Central Management System

v

Synology Chat

Suggested Users

100

Notes

- Measured with simulated users, each with an average record of 20,000 messages, emojis, or stickers. The required server response time is below ten seconds.
- Models with expandable memory are tested with their maximum supported memory.

Download Station

Maximum Concurrent Download Tasks	80
SAN Manager	
Maximum iSCSI Target Number	128
Maximum LUN	256
LUN Clone/Snapshot, Windows ODX	v
Synology MailPlus / MailPlus Server	
Free Email Accounts	5 (Additional accounts require purchase of licenses)
Suggested Users	500
Maximum Server Performance	1,224,000 emails per day, approx. 37GB
Notes	<ul style="list-style-type: none"> Suggested users is derived from testing in an environment with 20% heavy users (each with 20,000 pre-populated emails and receiving 240 emails per day) and 80% light users (each receiving an average of 20 emails per day). Learn more Models with expandable memory are tested with their maximum supported memory. The performance of the mail system will slightly decrease in high-availability mode due to data synchronization between the two servers. Functions that were enabled in all of the tests above: anti-spam, anti-virus, DNSBL, greylist, content scan, full-text search (English only).
Media Server	
DLNA Compliance	v
Synology Photos	
Facial Recognition	v
Object Recognition	v

Notes	Object recognition requires an upgrade of memory capacity to a minimum of 4 GB.
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Snapshot Replication

Maximum Snapshots per Shared Folder	1,024
Maximum of System Snapshots	65,536

Surveillance Station

Default Licenses	2 (Additional cameras require purchase of licenses)
Suggested Maximum IP Cameras and Total FPS (H.264)	<ul style="list-style-type: none"> • 720p: 25 channels, 750 FPS • 1080p: 25 channels, 750 FPS • 3M: 25 channels, 350 FPS • 5M: 25 channels, 280 FPS • 4K: 17 channels, 170 FPS
Suggested Maximum IP Cameras and Total FPS (H.265)	<ul style="list-style-type: none"> • 720p: 25 channels, 750 FPS • 1080p: 25 channels, 750 FPS • 3M: 25 channels, 600 FPS • 5M: 25 channels, 480 FPS • 4K: 20 channels, 200 FPS
Notes	<ul style="list-style-type: none"> • 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	350 (the number of connections that can be maintained when the recommended number of hosted files was reached)
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Recommended Number of Hosted Files	5,000,000 (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. Models with expandable memory are tested with their maximum supported memory. Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.
Synology Office	
Suggested Users	1,500
Notes	<ul style="list-style-type: none"> 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 Models with expandable memory are tested with their maximum supported memory. Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM
Virtual Machine Manager	
Recommended Virtual Machine Instances	2 (Learn more)
Recommended Virtual DSM Number (Licenses required)	2 (including 1 Free License)
Notes	The specifications vary depending on system configuration and memory size.
VPN Server	
Maximum Connections	40