

Product

# DS224+



## Hardware Specs

CPU	
CPU Model	Intel Celeron J4125
CPU Quantity	1
CPU Architecture	64-bit
CPU Frequency	4-core 2.0 (base) / 2.7 (burst) GHz
Hardware Encryption Engine (AES-NI)	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"><li>• 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.</li><li>• 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.</li></ul>
Storage	
Drive Bays	2
Compatible Drive Type* ( <a href="#">See all supported drives</a> )	<ul style="list-style-type: none"><li>• 3.5" SATA HDD</li><li>• 2.5" SATA SSD</li></ul>
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.
<b>External Ports</b>	
RJ-45 1GbE LAN Port	2 (with Link Aggregation / Failover support)
USB 3.2 Gen 1 Port*	2
USB Copy	v
Notes	<ul style="list-style-type: none"> <li>This device's 1GbE LAN ports have a maximum transmission unit (MTU) size of 1,500 bytes.</li> <li>The USB 3.0 standard was renamed to USB 3.2 Gen 1 by the USB Implementers Forum (USB-IF) in 2019.</li> </ul>
<b>File System</b>	
Internal Drives	<ul style="list-style-type: none"> <li>Btrfs</li> <li>EXT4</li> </ul>
External Drives	<ul style="list-style-type: none"> <li>Btrfs</li> <li>EXT4</li> <li>EXT3</li> <li>FAT</li> <li>NTFS</li> <li>HFS+</li> <li>exFAT</li> </ul>
<b>Appearance</b>	
Size (Height x Width x Depth)	165 mm x 108 mm x 232.2 mm
Weight	1.30 kg
<b>Others</b>	
System Fan	92 mm x 92 mm x 1 pcs
Fan Speed Mode	<ul style="list-style-type: none"> <li>Full-Speed Mode</li> <li>Cool Mode</li> <li>Quiet Mode</li> </ul>

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 W
Redundant Power Supply	-
AC Input Power Voltage	100V to 240V AC
Power Frequency	50/60 Hz, Single Phase
Power Consumption	14.69 W (Access) 4.41 W (HDD Hibernation)
British Thermal Unit	50.09 BTU/hr (Access) 15.04 BTU/hr (HDD Hibernation)
Notes	<ul style="list-style-type: none"> <li>• For more information on how power consumption is measured, refer to <a href="#">this article</a>.</li> <li>• 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%</li> </ul>

## 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

- 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 2
- Quick Installation Guide X 1

## Optional Accessories

- DDR4 non-ECC SODIMM: [D4NESO-2666-4G](#)
- 3.5" SATA HDD: [HAT3300](#)
- Surveillance Device License Pack

### 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
Maximum Internal Volume Number	64
SSD TRIM	v
Supported RAID Type	<ul style="list-style-type: none"><li>• Synology Hybrid RAID</li><li>• Basic</li><li>• JBOD</li><li>• RAID 0</li><li>• RAID 1</li></ul>
RAID Migration	Basic to RAID 1
Volume Expansion with Larger HDDs	<ul style="list-style-type: none"><li>• Synology Hybrid RAID</li><li>• RAID 1</li></ul>
Volume Expansion by Adding a HDD	Synology Hybrid RAID
Notes	<ul style="list-style-type: none"><li>• 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.</li><li>• Actual maximum storage pool and volume sizes depend on drive sizes used, the number of drive bays available, and the RAID configuration.</li></ul>

## File Services

File Protocol	SMB/AFP/NFS/FTP/WebDAV
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"> <li>Regarding data concerning tests with RAM expansion, all memory slots are installed with the maximum capacity of supported RAM.</li> <li>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.</li> </ul>

### 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
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## Log Center

Syslog Events per Second	800
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## General Specifications

Networking Protocols	SMB1 (CIFS), SMB2, SMB3, NFSv3, NFSv4, NFSv4.1, NFS Kerberized sessions, iSCSI, HTTP, HTTPs, FTP, SNMP, LDAP, CalDAV
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Supported Browsers	<ul style="list-style-type: none"><li>• Google Chrome</li><li>• Firefox</li><li>• Microsoft Edge</li><li>• Safari</li></ul>
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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
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Notes	For an updated list of supported browser versions, check the <a href="#">DSM Technical Specifications</a> .
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## Add-on Packages [view the complete package list](#)

### Antivirus by McAfee (Trial)

v

### Central Management System

v

### Synology Chat

Maximum Number of Concurrent Users	100
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Notes	<ul style="list-style-type: none"><li>• 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.</li><li>• When applicable, systems are tested configured with maximum memory and set to allow the maximum number of connections.</li></ul>
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## Document Viewer

v

## Download Station

Maximum Concurrent Download Tasks	80
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## SAN Manager

Maximum iSCSI Target Number	128
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Maximum LUN	256
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LUN Clone/Snapshot, Windows ODX	v
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## Synology MailPlus / MailPlus Server

Free Email Accounts	5 (Licenses required for additional accounts)
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Maximum Number of Concurrent Users	100
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Maximum Server Performance	1,224,000 emails per day, approx. 37GB
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### Notes

- For tested models with expandable memory, the maximum amount of RAM was installed.
- 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
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## Synology Photos

Facial Recognition	v
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Object Recognition	v
Notes	Object recognition requires an upgrade of memory capacity to a minimum of 4 GB.

### Snapshot Replication

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

### Surveillance Station

Maximum IP cam (Licenses required)	25 (including 2 Free License) ( <a href="#">see all supported IP cameras</a> )
Total FPS (H.264)	750 FPS @ 720p (1280×720) 750 FPS @ 1080p (1920×1080) 350 FPS @ 3M (2048×1536) 275 FPS @ 5M (2591×1944) 170 FPS @ 4K (3840×2160)
Total FPS (H.265)	750 FPS @ 720p (1280×720) 750 FPS @ 1080p (1920×1080) 600 FPS @ 3M (2048×1536) 475 FPS @ 5M (2591×1944) 200 FPS @ 4K (3840×2160)
Notes	<ul style="list-style-type: none"> <li>Maximum IP cameras and FPS figures are tested with the device fully populated with drives and under a continuous recording setup.</li> <li>Actual system capabilities may differ depending on system configuration, drive performance, number of features enabled, and if additional workloads are present.</li> </ul>

### 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)
Recommended Number of Hosted Files	5,000,000 (applies to files indexed or hosted by <a href="#">Synology Drive</a> . For file access through other standard protocols, refer to the File Services section above)

Notes	<ul style="list-style-type: none"> <li>Exceeding the recommended numbers above will not block application operations, but may result in longer response time.</li> <li>For tested models with expandable memory, the maximum amount of RAM was installed.</li> <li>Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.</li> </ul>
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## Synology Office

Maximum Users	1,200
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Notes	<ul style="list-style-type: none"> <li>Multiple files were opened for testing and each file was edited by 30 users simultaneously.</li> <li>For tested models with expandable memory, the maximum amount of RAM was installed.</li> <li>Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM</li> </ul>
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## Video Station

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## Virtual Machine Manager

Recommended Virtual Machine Instances	2 ( <a href="#">Learn more</a> )
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Recommended Virtual DSM Number ( <a href="#">Licenses required</a> )	2 (including 1 Free License)
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Notes	The specifications vary depending on system configuration and memory size.
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## VPN Server

Maximum Connections	40
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