Product Specifications

RS2423+

Hardware Specs

CPU

CPU Model	AMD Ryzen V1780B
CPU Quantity	1
CPU Architecture	64-bit
CPU Frequency	4-core 3.35 (base) / 3.6 (turbo) GHz
Hardware Encryption Engine (AES-NI)	v

Memory

System Memory	8 GB DDR4 ECC UDIMM
Memory Module Pre-installed	8 GB (8 GB x 1)
Total Memory Slots	2
Maximum Memory Capacity	32 GB (16 GB x 2)
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. - 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. - For more information about the recommended memory configurations, please check the Hardware Installation Guide of your Synology product.

Storage

Drive Bays	12

Maximum Drive Bays with Expansion Unit	24 (RX1223RP x 1)
Compatible Drive Type* (See all supported drives)	• 3.5" SATA HDD • 2.5" SATA SSD
Hot Swappable Drive*	v
Notes	• Synology only guarantees full functionality, reliability, and performance for Synology drives listed on the compatibility list. The use of non-validated components may limit certain functionality and result in data loss and system instability. • "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 (with Link Aggregation / Failover support)
RJ-45 10GbE LAN Port	1
USB 3.2 Gen 1 Port*	2
Expansion Port	1
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.

PCIe

PCIe Expansion	1 x Gen3 x8 slot (x4 link)

File System

Internal Drives	• Btrfs • EXT4

External Drives	- Btrfs - EXT4 - EXT3 - FAT - NTFS - HFS+ - exFAT

Appearance

Form Factor (RU)	2U
Size (Height x Width x Depth)	88 mm x 482 mm x 552 mm
Weight	11.5 kg
Rack Installation Support*	4-post 19" rack (Synology Rail Kit - RKS-02)
Notes	The rail kit is sold separately

Others

System Fan	60 mm x 60 mm x 3 pcs
Fan Speed Mode	- Full-Speed Mode - Cool Mode - Quiet Mode
Easy Replacement System Fan	v
Power Recovery	v
Noise Level*	52.3 dB(A)
Scheduled Power On / Off	v
Wake on LAN / WAN	v
Power Supply Unit / Adapter	500 W
Redundant Power Supply	-
AC Input Power Voltage	100 V to 240 V AC

Power Frequency	50/60 Hz, Single Phase
Power Consumption	119.95 W (Access) 46.21 W (HDD Hibernation)
British Thermal Unit	409.56 BTU/hr (Access) 157.78 BTU/hr (HDD Hibernation)
Notes	• For more information on how power consumption is measured, refer to this article. • Noise Level Testing Environment: A Synology NAS loaded with Synology 480GB SAT5200-480G solid-state drive(s) in idle state. Each G.R.A.S. type 40AE microphone is placed at a 1-meter distance from the front and rear of a Synology NAS. 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 35°C (32°F to 95°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
- UL

Warranty

3-year hardware warranty, extendable to 5 years with EW202 or 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 Cord X 1
- Quick Installation Guide X 1

Optional Accessories

- DDR4 ECC UDIMM: D4EU01-8G/D4EU01-16G
- Expansion Units: RX1223RP
- 3.5" SATA HDD: HAT5300
- 2.5" SATA SSD: SAT5210
- M.2 SSD & 10GbE Combo Adapter Card: E10M20-T1
- M.2 SSD Adapter Card: M2D20
- 25GbE Network Interface Card: E25G21-F2
- 10GbE Network Interface Card: E10G21-F2/E10G18-T2/E10G18-T1
- Rail Kit Sliding: RKS-02
- VisualStation: VS360HD
- Surveillance Device License Pack

Notes	- Certain items may not be available in your location. Please contact your local distributors for more information. - All memory modules will operate at the maximum frequency specified by the CPU manufacturer.

Software Specs

DSM Specifications

Storage Management

Maximum Single Volume Size*	• 200 TB (32 GB memory required) • 108 TB
Maximum Internal Volume Number	64
SSD Read / Write Cache (White Paper)	v
SSD TRIM	v
Supported RAID Type	• Synology Hybrid RAID • Basic • JBOD • RAID 0 • RAID 1 • RAID 5 • RAID 6 • RAID 10
RAID Migration	• Basic to RAID 1 • Basic to RAID 5 • RAID 1 to RAID 5 • RAID 5 to RAID 6
Volume Expansion with Larger HDDs	• Synology Hybrid RAID • RAID 1 • RAID 5 • RAID 6 • RAID 10
Volume Expansion by Adding a HDD	• Synology Hybrid RAID • JBOD • RAID 5 • RAID 6
Global Hot Spare Supported RAID Type	• Synology Hybrid RAID • RAID 1 • RAID 5 • RAID 6 • RAID 10

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. • Each internal volume (may consist of multiple drives) is expandable up to 108 TB (with memory less than 32 GB) or 200 TB (with memory equal to or greater than 32 GB).

File Services

File Protocol	SMB/AFP/NFS/FTP/WebDAV
Maximum Concurrent SMB/AFP/FTP Connections	2,000
Maximum Concurrent SMB/AFP/FTP Connections (with RAM expansion)	2,000
Windows Access Control List (ACL) Integration	v
NFS Kerberos Authentication	v
Notes	• 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	512

Maximum Shared Folder Sync Tasks	32

Hybrid Share

Maximum Hybrid Share Folders	10

High Availability

Synology High Availability	v

Log Center

Syslog Events per Second	1,000

Virtualization

VMware vSphere with VAAI	v
Citrix Ready	v
OpenStack	v

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

Antivirus by McAfee (Trial)

v	

Central Management System

v	

Synology Chat

Maximum Number of Concurrent Users	150
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. • When applicable, systems are tested configured with maximum memory and set to allow the maximum number of connections.

Document Viewer

v	

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 (Licenses required for additional accounts)

Maximum Number of Concurrent Users	150
Maximum Server Performance	1,484,000 emails per day, approx. 45GB
Notes	• Models with more than 4 bays were installed with two SSDs for SSD cache. • 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

Synology Photos

Facial Recognition	v

Snapshot Replication

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

Surveillance Station

Maximum IP cam (Licenses required)	50 (including 2 Free License) (see all supported IP cameras)
Total FPS (H.264)	1500 FPS @ 720p (1280×720) 1500 FPS @ 1080p (1920×1080) 1050 FPS @ 3M (2048×1536) 650 FPS @ 5M (2591×1944) 400 FPS @ 4K (3840×2160)

Total FPS (H.265)	1500 FPS @ 720p (1280×720) 1500 FPS @ 1080p (1920×1080) 1500 FPS @ 3M (2048×1536) 1050 FPS @ 5M (2591×1944) 650 FPS @ 4K (3840×2160)
Notes	• 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	600 (the number of connections that can be maintained when the recommended number of hosted files was reached)
Recommended Number of Hosted Files	50,000,000 (applies to files indexed or hosted by Synology Drive. For file access through other standard protocols, refer to the File Services section above)
Notes	• Exceeding the recommended numbers above will not block application operations, but may result in longer response time. • Utilizing SSD cache can significantly improve performance. • For tested models with expandable memory, the maximum amount of RAM was installed. • Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.

Synology Office

Maximum Users	1,800
Notes	• Multiple files were opened for testing and each file was edited by 30 users simultaneously. • For tested models with expandable memory, the maximum amount of RAM was installed. • Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM

Video Station

v

Virtual Machine Manager

Recommended Virtual Machine Instances	8 (Learn more)
Recommended Virtual DSM Number (Licenses required)	8 (including 1 Free License)
Notes	The specifications vary depending on system configuration and memory size.

VPN Server

Maximum Connections	40