

Product Specifications

RS2418+



Hardware Specs

CPU	
CPU Model	Intel Atom C3538
CPU Quantity	1
CPU Architecture	64-bit
CPU Frequency	4-core 2.1 GHz
Hardware Encryption Engine (AES-NI)	v
Memory	
System Memory	4 GB DDR4 non-ECC UDIMM
Memory Module Pre-installed	4 GB (4 GB x 1)
Total Memory Slots	4
Maximum Memory Capacity	64 GB (16 GB x 4)
Notes	<ul style="list-style-type: none">• For more information on memory upgrade limitations, visit here.• 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 on the recommended memory configurations, visit here.• 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	12
Maximum Drive Bays with Expansion Unit	24 (RX1217/RX1217RP x 1)
Compatible Drive Type* (See all supported drives)	<ul style="list-style-type: none"> • 3.5" SATA HDD • 2.5" SATA HDD • 2.5" SATA SSD
Maximum Single Volume Size*	108 TB
Hot Swappable Drive	v
Notes	<ul style="list-style-type: none"> • "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. • Each internal volume (may consist of multiple drives) is expandable up to 108TB.
External Ports	
RJ-45 1GbE LAN Port	4 (with Link Aggregation / Failover support)
USB 3.2 Gen 1 Port*	2
Expansion Port	1
Notes	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 (black, x4 link)
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	exFAT Access is purchased separately in Package Center.

Appearance

Form Factor (RU)	2U
Size (Height x Width x Depth)	88 mm x 482 mm x 696 mm
Weight	13.22 kg
Rack Installation Support*	4-post 19" rack (Synology Rail Kit - RKS1317)
Notes	The rail kit is sold separately

Others

System Fan	80 mm x 80 mm x 4 pcs
Fan Speed Mode	<ul style="list-style-type: none"> • Full-Speed Mode • Cool Mode • Quiet Mode
Easy Replacement System Fan	v
Power Recovery	v
Noise Level*	54 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*	109 W (Access) 52.4 W (HDD Hibernation)
British Thermal Unit	371.92 BTU/hr (Access) 178.8 BTU/hr (HDD Hibernation)
Notes	<ul style="list-style-type: none"> • Power consumption is measured when it is fully loaded with Western Digital 1TB WD10EFRX hard drive(s). • Support for Wake on WAN needs switch and routers which recognize Magic Packet. • 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	5°C to 35°C (40°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
- EAC
- CCC
- VCCI
- RCM

Warranty

3-year hardware warranty, extendable to 5-year coverage - [EW202](#)

Notes	The warranty period starts from the purchase date as stated on your purchase receipt. (Learn more)
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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: D4EC-2666-16G
- DDR4 non-ECC UDIMM: D4NE-2666-4G
- Expansion Units: [RX1217/RX1217RP](#)
- 3.5" SATA HDD: [HAT5300](#)
- 2.5" SATA SSD: [SAT5200](#)
- M.2 SSD Adapter Card: [M2D20/M2D18](#)
- 10GbE Network Interface Card: [E10G21-F2/E10G18-T2/E10G18-T1](#)
- Rail Kit Sliding: [RKS1317](#)
- VisualStation: [VS960HD/VS360HD](#)
- Surveillance Device License Pack

Notes

- All memory modules will operate at the maximum frequency specified by the CPU manufacturer.
- Minimum DSM version requirement: 6.2.2
- The original non-ECC memory modules must be removed before the optional ECC memory modules can be installed. For more information, visit [here](#).

Software Specs

DSM Specifications

Storage Management

Maximum Internal Volume Number

64

SSD Read / Write Cache
([White Paper](#))

v

SSD TRIM

v

Supported RAID Type	<ul style="list-style-type: none"> • Synology Hybrid RAID • Basic • JBOD • RAID 0 • RAID 1 • RAID 5 • RAID 6 • RAID 10
RAID Migration	<ul style="list-style-type: none"> • Basic to RAID 1 • Basic to RAID 5 • RAID 1 to RAID 5 • RAID 5 to RAID 6
Volume Expansion with Larger HDDs	<ul style="list-style-type: none"> • Synology Hybrid RAID • RAID 1 • RAID 5 • RAID 6 • RAID 10
Volume Expansion by Adding a HDD	<ul style="list-style-type: none"> • Synology Hybrid RAID • JBOD • RAID 5 • RAID 6
Global Hot Spare Supported RAID Type	<ul style="list-style-type: none"> • Synology Hybrid RAID • RAID 1 • RAID 5 • RAID 6 • RAID 10

File Services

File Protocol	SMB/AFP/NFS/FTP/WebDAV
Maximum Concurrent SMB/AFP/FTP Connections	1,000
Maximum Concurrent SMB/AFP/FTP Connections (with RAM expansion)	2,000
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	512
Maximum Shared Folder Sync Tasks	16

High Availability

Synology High Availability	v
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Log Center

Syslog Events per Second	800
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Virtualization

VMware vSphere with VAAI	v
Windows Server 2012	v
Windows Server 2012 R2	v
Windows Server 2016	v
Windows Server 2019	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	<ul style="list-style-type: none"> • Google Chrome • Firefox • Microsoft Edge • Internet Explorer 11 onwards • Safari 13 onwards • Safari (iOS 13.0 onwards) • Google Chrome (Android 11.0 onwards)
Supported Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ไทย, 日本語, 한국어, 繁體中文, 简体中文

Add-on Packages [view the complete package list](#)

Antivirus by McAfee (Trial)

v

Central Management System

v

Synology Chat

Maximum Users

1,500

Notes

- The number of concurrent HTTP connections for Synology Chat was configured to the maximum.
- For tested models with expandable memory, the maximum amount of RAM was installed.

Document Viewer

v

Download Station

Maximum Concurrent Download Tasks	80
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exFAT Access (Optional)

v

iSCSI Manager

Maximum iSCSI Target Number	128
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Maximum iSCSI LUN	256
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iSCSI 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	150
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Maximum Server Performance	1,484,000 emails per day, approx. 45GB
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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
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Moments

Facial Recognition	v
Subject Recognition	v
Auto Color & Rotate	v
Moments Select	v
Snapshot Replication	
Maximum Snapshots per Shared Folder	1,024
Maximum of System Snapshots	65,536
Surveillance Station	
Maximum IP cam (Licenses required)	40 (including 2 Free License) (See All Supported IP Cameras)
Total FPS (H.264)	1200 FPS @ 720p (1280×720) 960 FPS @ 1080p (1920×1080) 520 FPS @ 3M (2048×1536) 320 FPS @ 5M (2591×1944) 240 FPS @ 4K (3840×2160)
Total FPS (H.265)	1200 FPS @ 720p (1280×720) 1200 FPS @ 1080p (1920×1080) 880 FPS @ 3M (2048×1536) 520 FPS @ 5M (2591×1944) 400 FPS @ 4K (3840×2160)
Total FPS (MJPEG)	560 FPS @ 720p (1280×720) 270 FPS @ 1080p (1920×1080) 190 FPS @ 3M (2048×1536) 110 FPS @ 5M (2591×1944)
Notes	<ul style="list-style-type: none"> • Surveillance Station throughput is tested with Axis network camera, using continuous recording with live view from Surveillance Station and motion detection by camera. Live view and recording are sharing the same stream from the camera. • The maximum channel number also includes devices installed on Virtual DSM. • Total FPS may be affected by other services running at the same time (e.g., archive tasks performed by Archive Vault).

Synology Drive

Recommended Number of Hosted Files	1,000,000 (applies to files indexed or hosted by Synology Drive . For file access through other standard protocols, refer to the File Services section above)
Recommended Number of Concurrent Sync Clients	550 (the number of connections that can be maintained when the recommended number of hosted files was reached)
Notes	<ul style="list-style-type: none">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	<ul style="list-style-type: none">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

Video Transcoding	Group 1 - Type 1 (See more)
Maximum Transcoding Channel Number	1 channel, 30 FPS @ 1080p(1920×1080), H.264 (AVC)/MPEG-4 Part 2 (XVID, DIVX5)/MPEG-2/VC-1

Virtual Machine Manager

Recommended Virtual Machine Instances	4 (Learn more)
Recommended Virtual DSM Number (Licenses required)	4 (including 1 Free License)

Notes

The specifications vary depending on system configuration and memory size.

VPN Server

Maximum Connections

30