

Product Specifications

---

# RS422+

Synology

# Hardware Specs

| CPU                        |                              |
|----------------------------|------------------------------|
| CPU Model                  | AMD Ryzen R1600              |
| CPU Quantity               | 1                            |
| CPU Cores                  | 2                            |
| CPU Threads                | 4                            |
| CPU Architecture           | 64-bit                       |
| CPU Frequency              | 2.6 (base) / 3.1 (turbo) GHz |
| Hardware Encryption Engine | v                            |

| Memory        |                                                                                                                                                                                                                                                      |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System Memory | 2 GB DDR4 ECC                                                                                                                                                                                                                                        |
| Notes         | Synology may revise pre-installed memory module specifications in response to component lifecycle and supply conditions. All revised components undergo the same rigorous validation to ensure equivalent compatibility, stability, and performance. |

| Storage                                                 |                                    |
|---------------------------------------------------------|------------------------------------|
| Drive Bays ( <a href="#">See all supported drives</a> ) | 4 × 3.5" SATA HDD or 2.5" SATA SSD |
| Hot Swappable Drive*                                    | v                                  |

## External Ports

|                     |                                                                                          |
|---------------------|------------------------------------------------------------------------------------------|
| RJ-45 1GbE LAN Port | 2                                                                                        |
| USB 3.2 Gen 1 Port  | 1                                                                                        |
| Notes               | This device's 1GbE LAN ports have a maximum transmission unit (MTU) size of 1,500 bytes. |

## PCIe

|                |                                  |
|----------------|----------------------------------|
| PCIe Expansion | 1 × Gen3 ×2 network upgrade slot |
|----------------|----------------------------------|

## Appearance

|                               |                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor (RU)              | 1U                                                                                                                                                            |
| Size (Height × Width × Depth) | 44 mm × 478 mm × 327.5 mm                                                                                                                                     |
| Weight                        | 4.38 kg                                                                                                                                                       |
| Rack Installation Support*    | <ul style="list-style-type: none"><li>4-post 19" rack (Synology Rail Kit - <a href="#">RKM114/RKS-02</a>)</li><li>2-post 19" rack (direct mounting)</li></ul> |
| Notes                         | The rail kit is sold separately                                                                                                                               |

| Others                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System Fan                  | 40 mm × 40 mm × 3 pcs                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Fan Speed Mode              | <ul style="list-style-type: none"> <li>• Full-Speed Mode</li> <li>• Cool Mode</li> <li>• Quiet Mode</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |
| Power Recovery              | v                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Noise Level                 | 28.5 dB(A)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Scheduled Power On / Off    | v                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Wake on LAN / WAN           | v                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Power Supply Unit / Adapter | 100 watts                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| AC Input Power Voltage      | 100V to 240V AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Power Frequency             | 50/60 Hz, Single Phase                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Power Consumption           | 37.93 watts (Access)<br>13.43 watts (HDD Hibernation)                                                                                                                                                                                                                                                                                                                                                                                                                            |
| British Thermal Unit        | 129.42 BTU/hr (Access)<br>45.83 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 35°C (32°F to 95°F) |
|-----------------------|----------------------------|

|                     |                               |
|---------------------|-------------------------------|
| Storage Temperature | -20°C to 60°C (-5°F to 140°F) |
|---------------------|-------------------------------|

|                    |              |
|--------------------|--------------|
| Operating Humidity | 8% to 80% RH |
|--------------------|--------------|

|                  |              |
|------------------|--------------|
| Storage Humidity | 5% to 95% RH |
|------------------|--------------|

## Certification

- FCC
- CE
- BSMI
- VCCI
- RCM
- UKCA
- EAC
- CCC
- KC
- BIS

## Warranty

3-year hardware warranty, extendable to 5 years with [EW201](#) or [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 × 1
- Accessory Pack × 1
- AC Power Cord × 1
- Quick Installation Guide × 1

## Optional Accessories

- Enterprise Series 3.5" SATA HDD: [HAT5300 Series](#)
- Plus Series 3.5" SATA HDD: [HAT3300 Series](#)
- Enterprise Series 2.5" SATA SSD: [SAT5200 Series](#)
- 10GbE Network Upgrade Module: [E10G22-T1-Mini](#)
- Rail Kit Sliding: [RKS-02](#)
- Rail Kit Mounted: [RKM114\\*](#)

## Notes

Certain items may not be available in your location. Please contact your local distributors for more information.

# Software Specs

## DSM Specifications

### Storage Management

|                                                  |                                                                                                                                                                                             |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Single Volume Size                       | 108 TB                                                                                                                                                                                      |
| Maximum Internal Volume Number                   | 64                                                                                                                                                                                          |
| SSD Read/Write Cache<br>(Determining cache size) | v                                                                                                                                                                                           |
| SSD TRIM                                         | v                                                                                                                                                                                           |
| Storage Efficiency                               | 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><li>• RAID 5</li><li>• RAID 6</li><li>• RAID 10</li></ul> |
| RAID Migration                                   | <ul style="list-style-type: none"><li>• Basic to RAID 1</li><li>• Basic to RAID 5</li><li>• RAID 1 to RAID 5</li><li>• RAID 5 to RAID 6</li></ul>                                           |
| Volume Expansion with Larger HDDs                | <ul style="list-style-type: none"><li>• Synology Hybrid RAID</li><li>• RAID 1</li><li>• RAID 5</li><li>• RAID 6</li><li>• RAID 10</li></ul>                                                 |
| Volume Expansion by Adding a HDD                 | <ul style="list-style-type: none"><li>• Synology Hybrid RAID</li><li>• JBOD</li><li>• RAID 5</li></ul>                                                                                      |

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Global Hot Spare Supported RAID Type | <ul style="list-style-type: none"> <li>• Synology Hybrid RAID</li> <li>• RAID 1</li> <li>• RAID 5</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Notes                                | <ul style="list-style-type: none"> <li>• Actual maximum storage pool and volume sizes depend on drive sizes used, the number of drive bays available, and the RAID configuration.</li> <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>• Storage efficiency helps reduce storage space consumption through deduplication and compression. For more information about this feature and its support requirements, please refer to <a href="#">this article</a>.</li> </ul> |

## File System

|                 |                                                                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>• FAT32</li> <li>• NTFS</li> <li>• HFS+</li> <li>• exFAT</li> </ul> |

## File Services

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| File Protocol                                  | <ul style="list-style-type: none"><li>• SMB</li><li>• AFP</li><li>• NFS</li><li>• FTP</li><li>• WebDAV</li><li>• Rsync</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Maximum Number of SMB Connections (FSCT-Based) | 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Windows Access Control List (ACL) Integration  | v                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| NFS Kerberos Authentication                    | v                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Notes                                          | <ul style="list-style-type: none"><li>• Connection value of this model is tested with Synology SATA HDD fully populated and all onboard network ports</li><li>• SMB performance was evaluated using Microsoft File Server Capacity Tool (FSCT) version 1.3, with the following configuration:<ul style="list-style-type: none"><li>◦ Test workload: HomeFolder scenario provided by the FSCT tool</li><li>◦ Test duration: 600 seconds</li><li>◦ Domain controller &amp; FSCT controller: Windows Server 2022</li><li>◦ FSCT clients: 8 × Windows 10 machines</li><li>◦ SMB feature: Directory leasing enabled</li></ul></li></ul> |

### Account & Shared Folder

|                                  |     |
|----------------------------------|-----|
| Maximum Local User Accounts      | 512 |
| Maximum Local Groups             | 128 |
| Maximum Shared Folder            | 128 |
| Maximum Shared Folder Sync Tasks | 4   |

### Hybrid Share

|                              |    |
|------------------------------|----|
| Maximum Hybrid Share Folders | 10 |
|------------------------------|----|

### 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     | <ul style="list-style-type: none"> <li>• Chrome</li> <li>• Firefox</li> <li>• Edge</li> <li>• Safari</li> </ul>                                                                                 |
| 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 <a href="#">DSM Technical Specifications</a> .                                                                                     |

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

| Central Management System        |                                                                                                                                                                                                                                                                                                                    |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| v                                |                                                                                                                                                                                                                                                                                                                    |
|                                  |                                                                                                                                                                                                                                                                                                                    |
| Synology AI Console              |                                                                                                                                                                                                                                                                                                                    |
| Third-Party AI Model Integration | v                                                                                                                                                                                                                                                                                                                  |
|                                  |                                                                                                                                                                                                                                                                                                                    |
| Synology Chat                    |                                                                                                                                                                                                                                                                                                                    |
| Maximum Number of Users          | 100                                                                                                                                                                                                                                                                                                                |
| 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>• Models with expandable memory are tested with the maximum supported quantity installed.</li> </ul> |

## Download Station

|                                   |    |
|-----------------------------------|----|
| Maximum Concurrent Download Tasks | 80 |
|-----------------------------------|----|

## SAN Manager

|                             |   |
|-----------------------------|---|
| Maximum iSCSI Target Number | 2 |
|-----------------------------|---|

|             |   |
|-------------|---|
| Maximum LUN | 4 |
|-------------|---|

|                                 |   |
|---------------------------------|---|
| LUN Clone/Snapshot, Windows ODX | v |
|---------------------------------|---|

## Media Server

|                 |   |
|-----------------|---|
| DLNA Compliance | v |
|-----------------|---|

## Synology Photos

|                    |   |
|--------------------|---|
| Facial Recognition | v |
|--------------------|---|

## Snapshot Replication

|                                              |       |
|----------------------------------------------|-------|
| Maximum Snapshots per Shared Folder          | 128   |
| Maximum Snapshots per LUN                    | 32    |
| Maximum Snapshots per System                 | 1,024 |
| Maximum Replication Tasks for Shared Folders | 16    |
| Maximum Replication Tasks for LUNs           | 8     |
| Maximum Replication Tasks per System         | 16    |

## Surveillance Station

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default Licenses                         | 2 ( <a href="#">Additional cameras require purchase of licenses</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Maximum IP Cameras and Total FPS (H.264) | <ul style="list-style-type: none"><li>• 1080p: 40 channels, 800 FPS</li><li>• 3M: 35 channels, 350 FPS</li><li>• 5M: 28 channels, 280 FPS</li><li>• 4K: 17 channels, 170 FPS</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Maximum IP Cameras and Total FPS (H.265) | <ul style="list-style-type: none"><li>• 1080p: 40 channels, 1200 FPS</li><li>• 3M: 40 channels, 600 FPS</li><li>• 5M: 40 channels, 480 FPS</li><li>• 4K: 20 channels, 200 FPS</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Notes                                    | <ul style="list-style-type: none"><li>• 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.</li><li>• Use <a href="#">NVR Selector</a> to quickly find a suitable model based on your requirements.</li><li>• The number of video channels that can be viewed simultaneously is double the maximum number of cameras for the same codec and resolution.</li><li>• The values above are based on testing with RTSP streaming. If SRTP is enabled for all cameras, overall performance will decrease to 70% of the stated figures.</li></ul> |

## Synology Drive

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Number of Users        | 70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Maximum Number of Hosted Files | 500,000 (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>• The suggested maximum number of users is based on the following workload: 20% of users randomly perform file operations (upload, download, move, and delete), and 80% of users are logged in but idle. <a href="#">Learn more</a></li><li>• Models with SSD support are tested with a single SSD volume.</li><li>• Exceeding the recommended numbers above will not block application operations, but may result in longer response time.</li><li>• Btrfs file system and non-encrypted shared folders were used during the aforementioned testing.</li></ul> |

## Synology Office

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Number of Users | 70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Notes                   | <ul style="list-style-type: none"><li>• The suggested maximum number of users is based on the following workload: 20% of users are executing random actions at an average of 30-second intervals, and 80% of users are logged in and viewing a file. <a href="#">Learn more</a></li><li>• Models with SSD support are tested with a single SSD volume.</li><li>• Client performance may affect maximum simultaneous editing users. Client PCs used for testing: Intel Core i3-3220 / 8GB RAM</li></ul> |

## VPN Server

|                     |   |
|---------------------|---|
| Maximum Connections | 4 |
|---------------------|---|